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\* \* \* \* \* Welcome to STN International \* \* \* \* \*

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NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	AUG 09	INSPEC enhanced with 1898-1968 archive
NEWS 4	AUG 28	ADISCTI Reloaded and Enhanced
NEWS 5	AUG 30	CA(SM)/Caplus(SM) Austrian patent law changes
NEWS 6	SEP 11	CA/Caplus enhanced with more pre-1907 records
NEWS 7	SEP 21	CA/Caplus fields enhanced with simultaneous left and right truncation
NEWS 8	SEP 25	CA(SM)/Caplus(SM) display of CA Lexicon enhanced
NEWS 9	SEP 25	CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS 10	SEP 25	CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
NEWS 11	SEP 28	CEABA-VTB classification code fields reloaded with new classification scheme
NEWS 12	OCT 19	LOGOFF HOLD duration extended to 120 minutes
NEWS 13	OCT 19	E-mail format enhanced
NEWS 14	OCT 23	Option to turn off MARPAT highlighting enhancements available
NEWS 15	OCT 23	CAS Registry Number crossover limit increased to 300,000 in multiple databases
NEWS 16	OCT 23	The Derwent World Patents Index suite of databases on STN has been enhanced and reloaded
NEWS 17	OCT 30	CHEMLIST enhanced with new search and display field
NEWS 18	NOV 03	JAPIO enhanced with IPC 8 features and functionality
NEWS 19	NOV 10	CA/Caplus F-Term thesaurus enhanced
NEWS 20	NOV 10	STN Express with Discover! free maintenance release Version 8.01c now available
NEWS 21	NOV 13	CA/Caplus pre-1967 chemical substance index entries enhanced with preparation role
NEWS EXPRESS	NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.01c(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.	
NEWS HOURS	STN Operating Hours Plus Help Desk Availability	
NEWS LOGIN	Welcome Banner and News Items	
NEWS IPC8	For general information regarding STN implementation of IPC 8	
NEWS X25	X.25 communication option no longer available	

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 11:08:00 ON 13 NOV 2006

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.84

0.84

FILE 'REGISTRY' ENTERED AT 11:10:04 ON 13 NOV 2006

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STRUCTURE FILE UPDATES: 12 NOV 2006 HIGHEST RN 913055-81-9

DICTIONARY FILE UPDATES: 12 NOV 2006 HIGHEST RN 913055-81-9

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TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

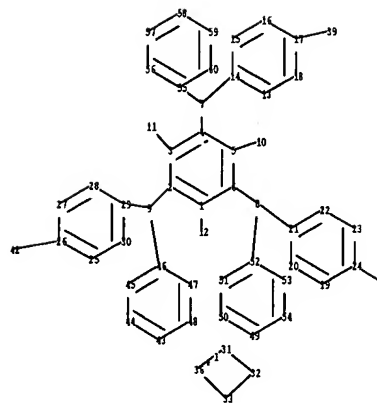
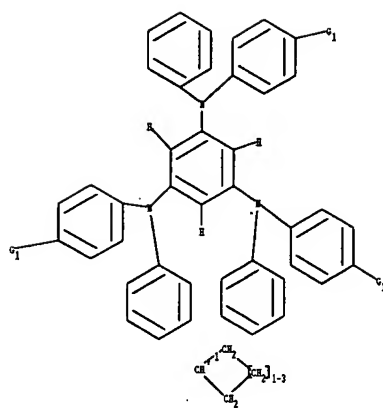
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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10508910d.str



chain nodes :

7 8 9 10 11 12 39 40 42

ring nodes :

1 2 3 4 5 6 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28  
29 30 31 32 33 36 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57  
58 59 60

chain bonds :

1-12 2-9 3-11 4-7 5-10 6-8 7-14 7-55 8-21 8-52 9-29 9-46 17-39 24-40  
26-42

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 13-14 13-18 14-15 15-16 16-17 17-18 19-20  
19-24 20-21 21-22 22-23 23-24 25-26 25-30 26-27 27-28 28-29 29-30 31-32  
31-36 32-33 33-36 43-44 43-48 44-45 45-46 46-47 47-48 49-50 49-54 50-51  
51-52 52-53 53-54 55-56 55-60 56-57 57-58 58-59 59-60

exact/norm bonds :

2-9 4-7 6-8 7-14 7-55 8-21 8-52 9-29 9-46 17-39 24-40 26-42 31-32  
31-36 32-33 33-36

exact bonds :

1-12 3-11 5-10

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 13-14 13-18 14-15 15-16 16-17 17-18 19-20  
 19-24 20-21 21-22 22-23 23-24 25-26 25-30 26-27 27-28 28-29 29-30 43-44  
 43-48 44-45 45-46 46-47 47-48 49-50 49-54 50-51 51-52 52-53 53-54 55-56  
 55-60 56-57 57-58 58-59 59-60

G1:CH3,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu,[\*1]

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS  
 11:CLASS 12:CLASS 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom  
 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom  
 29:Atom 30:Atom 31:Atom 32:Atom 33:Atom 36:Atom 39:CLASS 40:CLASS 42:CLASS  
 43:CLASS 44:CLASS 45:CLASS 46:Atom 47:Atom 48:Atom 49:Atom 50:Atom 51:Atom  
 52:Atom 53:Atom 54:Atom 55:Atom 56:Atom 57:Atom 58:Atom 59:Atom 60:Atom

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 11:10:33 FILE 'REGISTRY'  
 SAMPLE SCREEN SEARCH COMPLETED - 24 TO ITERATE

100.0% PROCESSED 24 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
 BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 187 TO 773  
 PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

=> search l1

ENTER TYPE OF SEARCH (SSS), CSS, FAMILY, OR EXACT:.  
 ENTER SCOPE OF SEARCH (SAMPLE), FULL, RANGE, OR SUBSET:full  
 FULL SEARCH INITIATED 11:10:44 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 573 TO ITERATE

100.0% PROCESSED 573 ITERATIONS

35 ANSWERS

SEARCH TIME: 00.00.02

L3 35 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

ENTRY

TOTAL

SESSION

FULL ESTIMATED COST

166.94

167.78

FILE 'CAPLUS' ENTERED AT 11:10:51 ON 13 NOV 2006  
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FILE COVERS 1907 - 13 Nov 2006 VOL 145 ISS 21  
 FILE LAST UPDATED: 12 Nov 2006 (20061112/ED)

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=> s 13

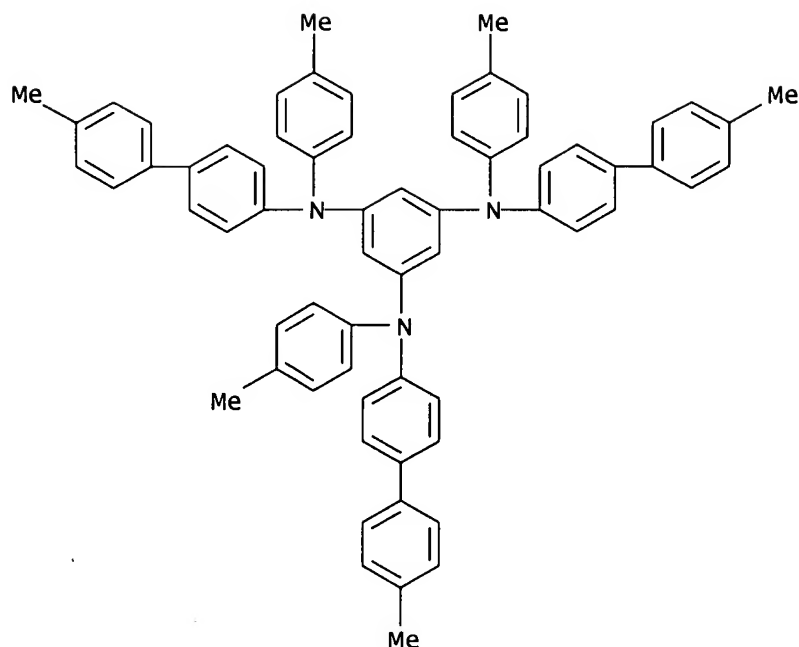
L4 34 L3

=> d fbib ab hitstr 1-34

L4 ANSWER 1 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:1129939 CAPLUS  
 DN 143:413605  
 TI Display element containing amine derivative  
 IN Onishima, Yasunori  
 PA Sony Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 19 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2005294188	A2	20051020	JP 2004-110869	20040405
				JP 2004-110869	20040405

OS MARPAT 143:413605  
 AB Disclosed is a display element comprising an organic layer consisting of a pos. hole transporting layer and a light emitting layer between anode and cathode, wherein said pos. hole transporting layer has a 3-layer structure, an intermediate layer of which contains I (A1-6 = H, Ph, naphthyl, etc.).  
 IT 852641-11-3  
 RL: DEV (Device component use); USES (Uses)  
 (Display element containing amine derivative)  
 RN 852641-11-3 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4'-methyl[1,1'-biphenyl]-4-yl)-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:902553 CAPLUS

DN 143:238366

TI Organic electroluminescent device

IN Kato, Tetsuya; Kojima, Kazushige

PA Denso Corporation, Japan

SO U.S. Pat. Appl. Publ., 22 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005184657	A1	20050825	US 2005-61449	20050222
				JP 2004-49462	A 20040225
				JP 2004-302986	A 20041018
	JP 2005276802	A2	20051006	JP 2004-302986	20041018
				JP 2004-49462	A 20040225
				KR 2005-14874	20050223
	KR 2006043123	A	20060515	JP 2004-49462	A 20040225
				JP 2004-302986	A 20041018

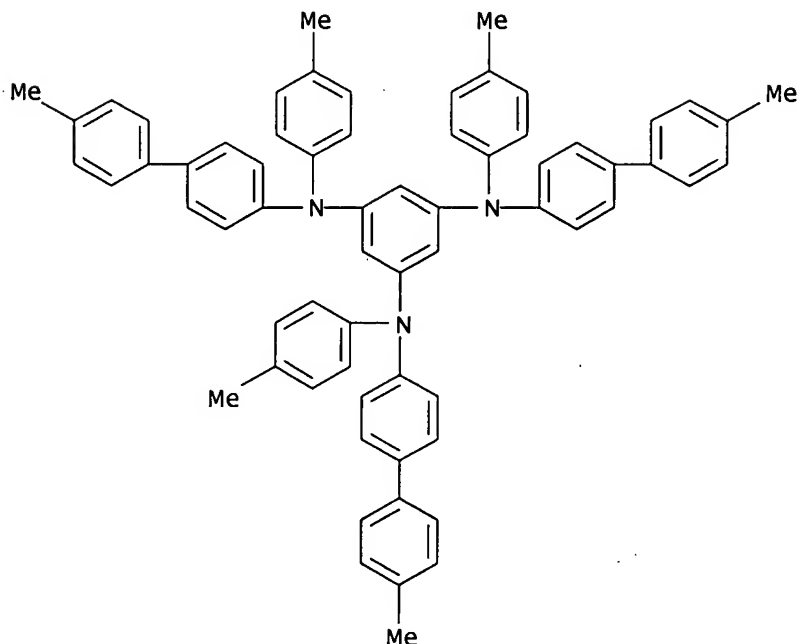
OS MARPAT 143:238366

AB An organic EL device includes a pair of electrodes, a light emitter layer obtained by mixing a hole transporting material made of a tertiary amine compound, an electron transporting material and a light emitting additive. The tertiary amine compound constituting the hole transporting material has only one oxidation potential as measured by the cyclic voltammetry. A difference in ionization potential between the hole transporting material and electron transporting material of the light emitter layer is 0.35 eV or greater.

IT 852641-11-3P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
(organic electroluminescent device)

RN 852641-11-3 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4'-methyl[1,1'-biphenyl]-4-yl)-  
 N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 3 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:606195 CAPLUS  
 DN 143:142829  
 TI High-density optical recording materials particularly sensitive to blue laser lights  
 IN Ishida, Tsutomu; Miyazato, Masataka; Shiozaki, Hiroyuki; Ogiso, Akira  
 PA Mitsui Chemicals Inc., Japan  
 SO Jpn. Kokai Tokkyo Koho, 41 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

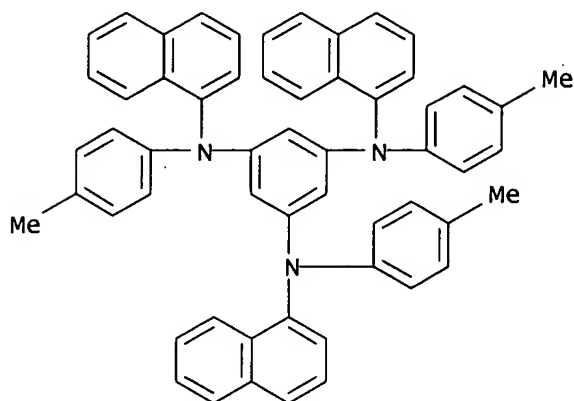
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005186429	A2	20050714	JP 2003-430279 JP 2003-430279	20031225 20031225

OS MARPAT 143:142829  
 AB The material has  $\geq 1$  recording layer containing  $\geq 1$  trisdiarylamine derivative. The trisdiarylamine derivs. may be Ar(NAr1Ar2)(NAr3Ar4)NAr5Ar6 [Ar1-6 = (un)substituted monovalent aromatic group, substituent = halo, nitro, OH, alkyl, aryl, alkylthio, metallocenyl, etc.; Ar = (un)substituted trivalent aromatic group, substituent = same as above]. The material shows improved recording and reading-out by laser beams at wavelength 300-900 nm.

IT 604784-26-1  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (trisdiarylamine organic dyes for high-d. optical recording materials sensitive to blue laser lights)

RN 604784-26-1 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-tri-1-

naphthalenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:472504 CAPLUS  
 DN 143:16219  
 TI Organo-electronic functional material and use thereof  
 IN Akashi, Nobutaka; Shiota, Yasuhiko  
 PA Bando Chemical Industries, Ltd., Japan  
 SO PCT Int. Appl., 29 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005051047	A1	20050602	WO 2004-JP17440	20041117
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
				JP 2003-391882	A 20031121
				JP 2003-404721	A 20031203
	JP 2005190993	A2	20050714	JP 2004-331491	20041116
				JP 2003-391882	A 20031121
				JP 2003-404721	A 20031203
	EP 1696709	A1	20060830	EP 2004-799796	20041117
	R: DE, FR, GB				
				JP 2003-391882	A 20031121
				JP 2003-404721	A 20031203
				WO 2004-JP17440	W 20041117

AB The invention relates to an organo-electronic functional material comprising a tris(arylamino)benzene of the general formula: (I) (wherein A and B are groups of the general formula: (II) (in which R is a C1-C6 alkyl or a C5 or C6 cycloalkyl; and n is 0, 1, 2 or 3), which groups may be identical with or different from each other), and that in a cyclic voltagram, the organo-electronic functional material exhibits a deviation



of peak current of 50-cyclic curve, measured at a sweep rate of 20 mV/s, falling within  $\pm 10\%$  of the average of peak current. This organo-electronic functional material has photo-electron conversion capability, being reversible in oxidation-reduction and by itself can form an amorphous film. Further, not only is the glass transition temperature thereof high but also

even

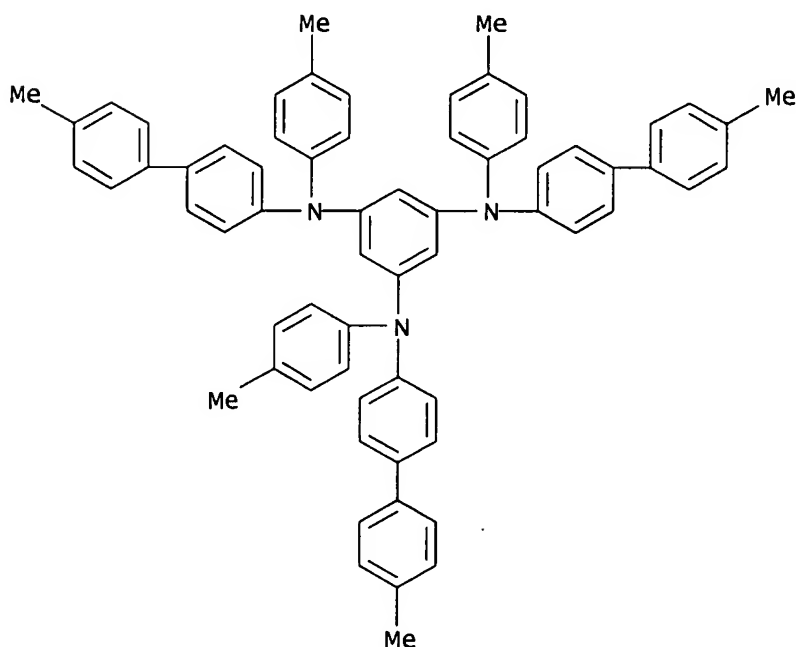
in repeated oxidation-reduction, the change of peak current value is slight, ensuring stability. Therefore, the organo-electronic functional material can be appropriately used as, for example, a hole transport material in various electronic devices including organic electroluminescent devices.

IT 852641-11-3P

RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
(organo-electronic functional material and its application for electroluminescent devices)

RN 852641-11-3 CAPLUS

CN 1,3,5-Benzenetriamine, N,N',N''-tris(4'-methyl[1,1'-biphenyl]-4-yl)-  
N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:295951 CAPLUS

DN 142:491862

TI Composite cavity transport material

IN Xu, Wei; Hua, Zhongyi

PA Fudan University, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 30 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

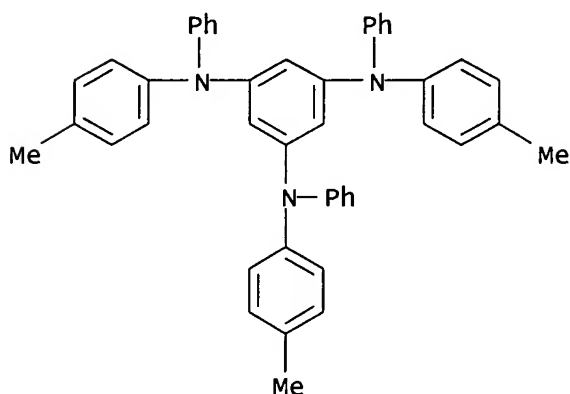
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI CN 1458141 A 20031126 CN 2002-111700 20020516  
 CN 2002-111700 20020516

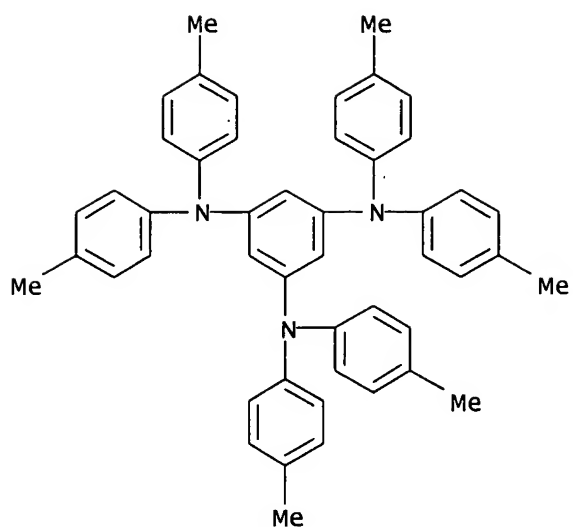
AB The cavity transport material is composed of 2-4 kinds of aromatic triamine homologs. The aromatic triamine is prepared by N-alkylating 1,3,5-tri(aryl amino)benzene with aromatic iodide in solvent (decalin, dodecane, decane, or di-Ph ether) in the presence of Cu powder/KOH at 120-200° for 2-12 h then with another aromatic halide for 8-48 h under bubbling N<sub>2</sub> or inert gas, filtering, washing with MeOH, decolorizing with activated C, and purifying via recrystn. or column chromatog. The cavity transport material may be used to manufacture electroluminescent device that consists of an anode of transparent conductive film, a cavity transport layer of the cavity transport material, a luminescent layer of organometallic complex (organic mol., or polymer), an electrode transport layer of organic mol. or organic complex, and a metal cathode.

IT 126717-25-7 134257-64-0 604784-30-7  
 850447-64-2 850447-65-3 850447-66-4  
 850447-87-9 850447-88-0 850448-10-1  
 850448-15-6 850448-21-4  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (composite cavity transport material for manufacture of electroluminescent device)

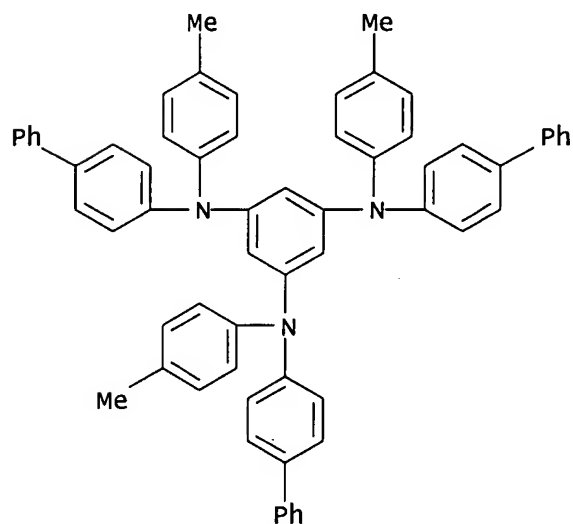
RN 126717-25-7 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-triphenyl- (9CI) (CA INDEX NAME)



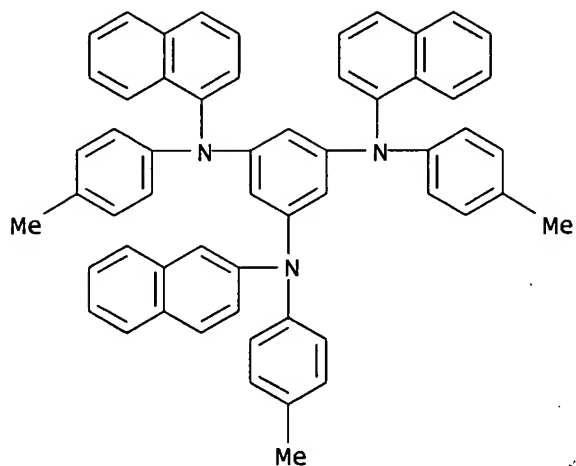
RN 134257-64-0 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)- (9CI)  
 (CA INDEX NAME)



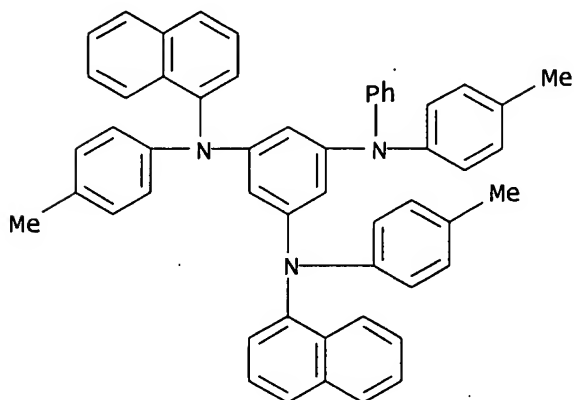
RN 604784-30-7 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris([1,1'-biphenyl]-4-yl)-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



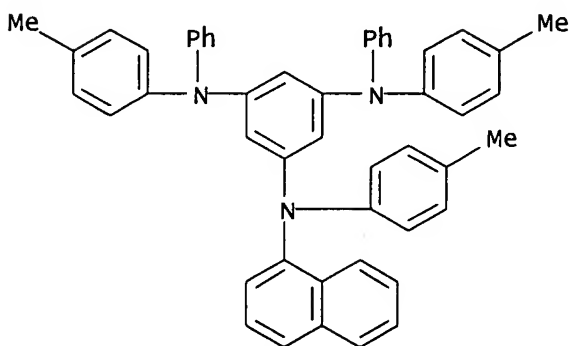
RN 850447-64-2 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N'-di-1-naphthalenyl-N''-2-naphthalenyl- (9CI) (CA INDEX NAME)



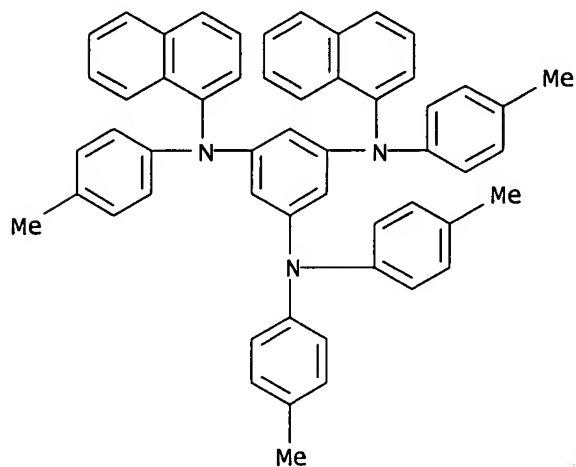
RN 850447-65-3 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N'-di-1-naphthalenyl-N''-phenyl- (9CI) (CA INDEX NAME)



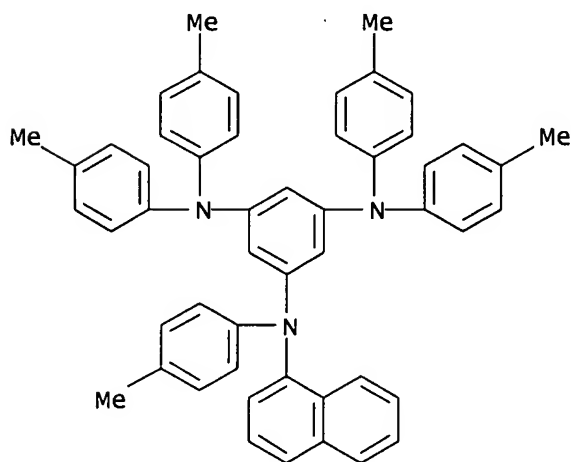
RN 850447-66-4 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N-1-naphthalenyl-N',N''-diphenyl- (9CI) (CA INDEX NAME)



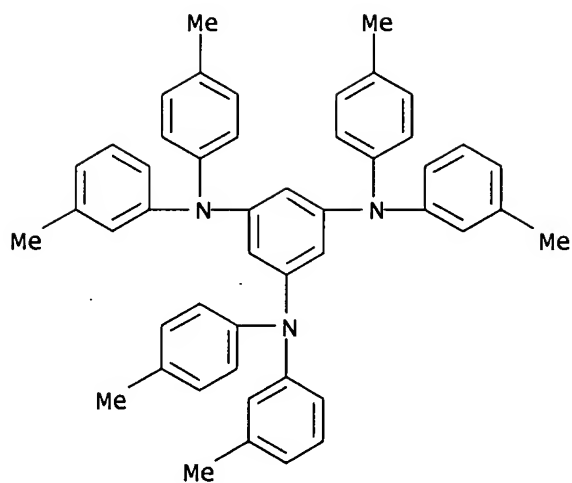
RN 850447-87-9 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N,N',N''-tetrakis(4-methylphenyl)-N',N''-di-1-naphthalenyl- (9CI) (CA INDEX NAME)



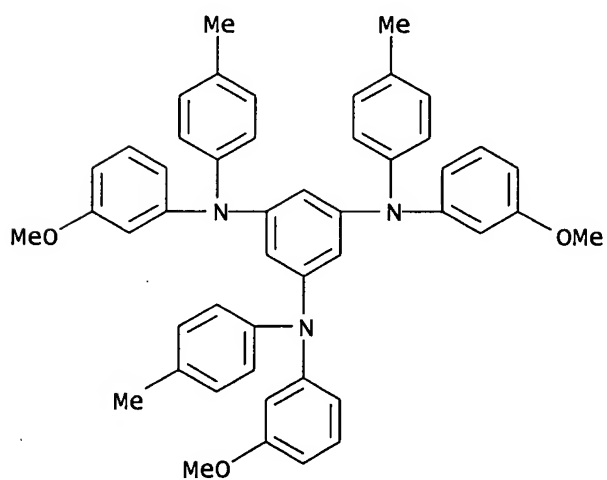
RN 850447-88-0 CAPLUS  
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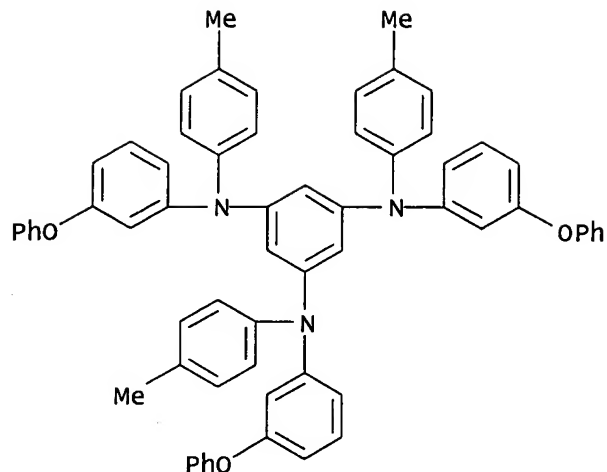
RN 850448-10-1 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(3-methylphenyl)-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 850448-15-6 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(3-methoxyphenyl)-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 850448-21-4 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-tris(3-phenoxyphenyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 6 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2004:250492 CAPLUS  
 DN 140:278245  
 TI Electroluminescent display device  
 IN Onishima, Yasunori; Akashi, Nobutaka; Inada, Hiroshi  
 PA Sony Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 16 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004095491	A2	20040325	JP 2002-258453	20020904
				JP 2002-258453	20020904

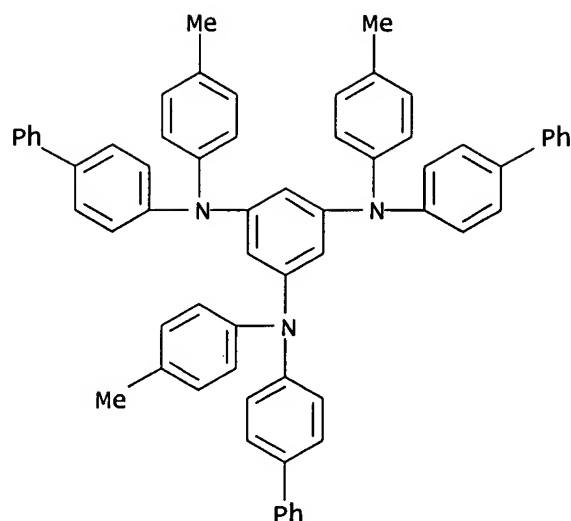
AB The invention relates to an organic electroluminescent display device comprising 1,3,5-tris(arylamino)benzene represented by I [A = naphthyl, anthryl, phenanthryl, biphenyl, and terphenyl]; R = C1-6 alkyl, C5 cycloalkyl, and C6 cycloalkyl].

IT 604784-30-7

RL: DEV (Device component use); USES (Uses)  
 (electroluminescent display device comprising 1,3,5-tris(arylamino)benzene derivative)

RN 604784-30-7 CAPLUS

CN 1,3,5-Benzenetriamine, N,N',N''-tris([1,1'-biphenyl]-4-yl)-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2003:777743 CAPLUS  
 DN 139:276695  
 TI Preparation of new 1,3,5-tris(arylamino)benzene  
 IN Shiota, Yasuhiko; Akashi, Nobutaka; Norisada, Hideki; Hayashi, Tomoko  
 PA Bando Chemical Industries, Ltd., Japan  
 SO PCT Int. Appl., 34 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003080558	A1	20031002	WO 2003-JP3752	20030326
W: CN, KR, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
JP 2004155754	A2	20040603	JP 2002-89490	A 20020327
			JP 2002-89491	A 20020327
			JP 2003-79441	20030324
			JP 2002-89490	A 20020327
			JP 2002-89491	A 20020327
EP 1496044	A1	20050112	EP 2003-712976	20030326
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
			JP 2002-89490	A 20020327
			JP 2002-89491	A 20020327
			WO 2003-JP3752	W 20030326
US 2005090692	A1	20050428	US 2003-508910	20030326
			JP 2002-89491	A 20020327
			WO 2003-JP3752	W 20030326
CN 1642903	A	20050720	CN 2003-807138	20030326
			JP 2002-89490	A 20020327
			JP 2002-89491	A 20020327

OS MARPAT 139:276695  
 AB The patent relates to the preparation of 1,3,5-tris(arylamino)benzene I wherein A = naphthyl, anthryl, phenanthryl, biphenyl, or terphenyl and R = C1-6 alkyl or C5-6 cycloalkyl. It can form an amorphous film which has a high glass transition temperature and which in itself, i.e., without the aid of



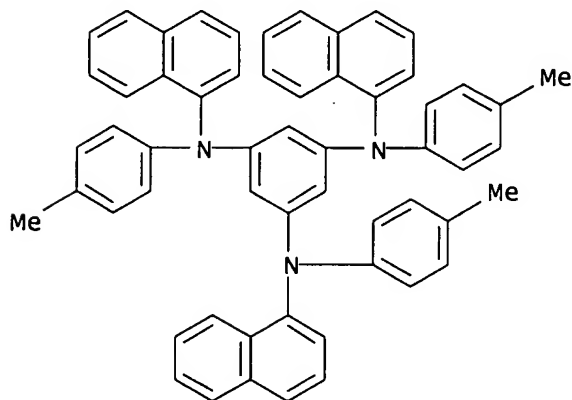
a binder resin, is stable at ordinary or a higher temperature. A high-performance organic semiconductor film can be formed which is stable and highly durable and consists of the amorphous film. Thus, 1,3,5-tris[N-(p-methylphenyl)-N-(1-naphthyl)amino]benzene prepared by the reaction of 1-iodonaphthalene and 1,3,5-tris(p-toluylamino)benzene which was made from phloroglucinol and p-toluidine gave an oxidation potential of about 0.6 V and had excellent reversibility in oxidation/reduction processes.

IT 604784-26-1P 604784-28-3P 604784-30-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(in preparation of new 1,3,5-tris(arylamino)benzene)

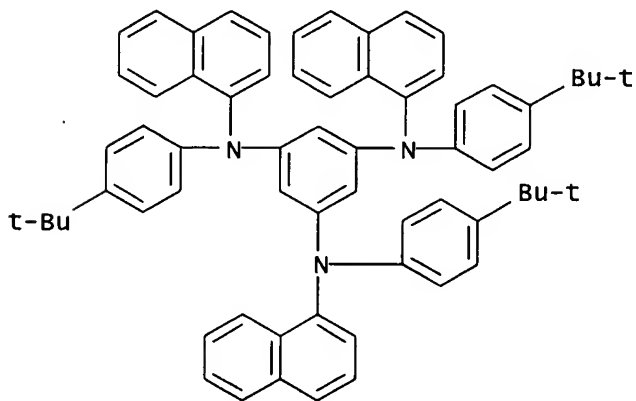
RN 604784-26-1 CAPLUS

CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-tri-1-naphthalenyl- (9CI) (CA INDEX NAME)



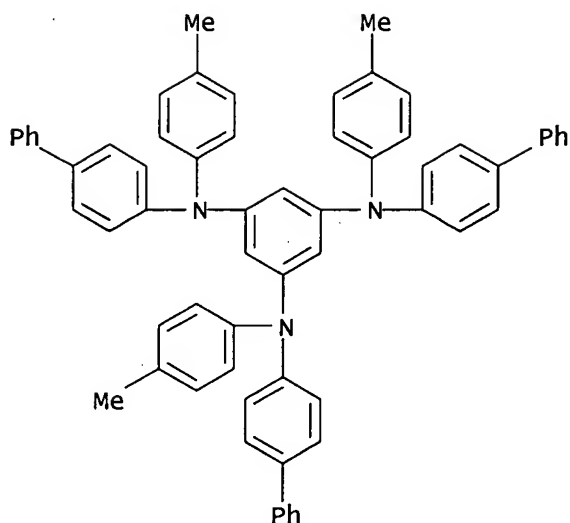
RN 604784-28-3 CAPLUS

CN 1,3,5-Benzenetriamine, N,N',N''-tris[4-(1,1-dimethylethyl)phenyl]-N,N',N''-tri-1-naphthalenyl- (9CI) (CA INDEX NAME)



RN 604784-30-7 CAPLUS

CN 1,3,5-Benzenetriamine, N,N',N''-tris([1,1'-biphenyl]-4-yl)-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2003:609758 CAPLUS  
DN 139:171099  
TI Organic light-emitting devices employing phosphorescent material doped  
into the electron-transporting layer  
IN Yamazaki, Hiroko; Tokuda, Atsushi; Tsutsui, Tetsuo  
PA Semiconductor Energy Laboratory Co., Ltd., USA  
SO U.S. Pat. Appl. Publ., 27 pp.  
CODEN: USXXCO

DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003146443	A1	20030807	US 2002-304410	20021126
	US 6734457	B2	20040511		
	JP 2003229275	A2	20030815	JP 2001-360500	A 20011127
	JP 3759925	B2	20060329	JP 2002-341774	20021126
				JP 2001-360500	A 20011127
	US 2004124425	A1	20040701	US 2003-737569	20031216
				JP 2001-360500	A 20011127
				US 2002-304410	A1 20021126
	JP 2005101002	A2	20050414	JP 2004-360371	20041213
				JP 2001-360500	A 20011127
				JP 2002-341774	A3 20021126

AB Light-emitting devices are described which comprise an anode, an optional hole-injection layer in contact with the anode, an organic compound film, an optional electron-injection layer in contact with a cathode, and a cathode, where the organic compound film comprises a hole-transporting layer containing a hole-transporting material; and an electron-transporting layer in contact with the hole-transporting layer and containing an electron-transporting material, where a light-emitting material capable of emitting light from a triplet excited state is added in the electron transporting layer.

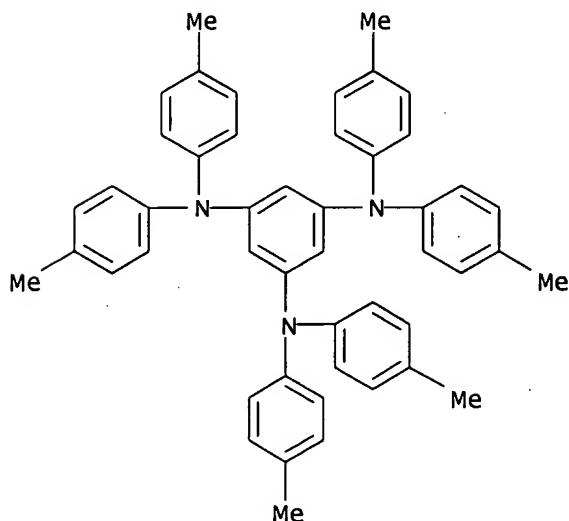
IT 134257-64-0

RL: DEV (Device component use); PRP (Properties); USES (Uses)

(hole-transporting layer; organic light-emitting devices employing phosphorescent material doped in electron-transporting layer)

RN 134257-64-0 CAPLUS

CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)- (9CI)  
(CA INDEX NAME)



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:237137 CAPLUS

DN 136:270534

TI Electrophotographic photoreceptor

IN Miyamoto, Eiichi; Inagaki, Yoshio; Fukunaga, Hideaki

PA Kyocera Mita Industrial Co., Ltd., Japan; Kyocera Corp.

SO Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002091033	A2	20020327	JP 2000-281052	20000918
	US 2002051918	A1	20020502	US 2001-910916	20010724
	US 6489071	B2	20021203		
				JP 2000-224240	A 20000725
				JP 2000-243150	A 20000810
				JP 2000-250409	A 20000822
				JP 2000-281051	A 20000918
				JP 2000-281052	A 20000918
				JP 2000-311421	A 20001012
				JP 2000-355340	A 20001122
				JP 2000-366431	A 20001201
				JP 2001-20876	A 20010130
				JP 2001-20877	A 20010130

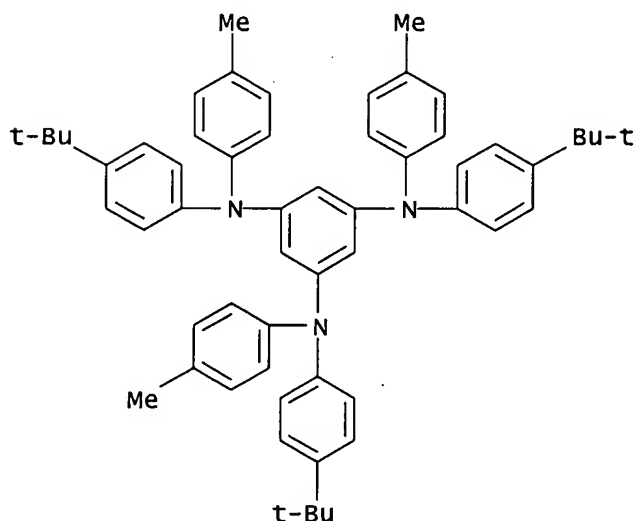
PATENT FAMILY INFORMATION:

FAN 2002:87279

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1176469	A1	20020130	EP 2001-306364	20010725

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

			JP 2000-224240	A	20000725
			JP 2000-243150	A	20000810
			JP 2000-250409	A	20000822
			JP 2000-281051	A	20000918
			JP 2000-311421	A	20001012
			JP 2000-355340	A	20001122
			JP 2000-366431	A	20001201
			JP 2001-20876	A	20010130
			JP 2001-20877	A	20010130
JP 2002040689	A2	20020206	JP 2000-224240		20000725
JP 2002055467	A2	20020220	JP 2000-243150		20000810
JP 2002062676	A2	20020228	JP 2000-250409		20000822
JP 2002091031	A2	20020327	JP 2000-281051		20000918
JP 2002123011	A2	20020426	JP 2000-311421		20001012
JP 2002156768	A2	20020531	JP 2000-355340		20001122
JP 2002169313	A2	20020614	JP 2000-366431		20001201
JP 2002229233	A2	20020814	JP 2001-20876		20010130
JP 2002229232	A2	20020814	JP 2001-20877		20010130
OS	MARPAT 136:270534				
AB	The invention relates to an electrophotog. photoreceptor which hardly forms cracks during the usage and storage. The electrophotog. photoreceptor comprises an organic photosensitive layer and an inorg. surface protective layer formed on a support, wherein the surface of photosensitive layer contacting the surface protective layer contains a triaminobenzene derivative represented by I (R1-6 = H, halo, alkyl, alkoxy, aryl; and a-f = 1-5). The surface protective layer contains an inorg. substance such as a-SiC, a-SiN, etc.				
IT	393586-96-4				
	RL: DEV (Device component use); USES (Uses) (electrophotog. photoreceptor triaminobenzene derivative)				
RN	393586-96-4 CAPLUS				
CN	1,3,5-Benzenetriamine, N,N',N''-tris[4-(1,1-dimethylethyl)phenyl]-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)				



L4 ANSWER 10 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2002:87279 CAPLUS  
 DN 136:142582

TI Electrosensitive material  
 IN Miyamoto, Eiichi; Fukunaga, Hideaki; Inagaki, Yoshio  
 PA Kyocera Mita Corporation, Japan; Kyocera Corporation  
 SO Eur. Pat. Appl., 246 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1176469	A1	20020130	EP 2001-306364	20010725
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
				JP 2000-224240	A 20000725
				JP 2000-243150	A 20000810
				JP 2000-250409	A 20000822
				JP 2000-281051	A 20000918
				JP 2000-311421	A 20001012
				JP 2000-355340	A 20001122
				JP 2000-366431	A 20001201
				JP 2001-20876	A 20010130
				JP 2001-20877	A 20010130
	JP 2002040689	A2	20020206	JP 2000-224240	20000725
	JP 2002055467	A2	20020220	JP 2000-243150	20000810
	JP 2002062676	A2	20020228	JP 2000-250409	20000822
	JP 2002091031	A2	20020327	JP 2000-281051	20000918
	JP 2002123011	A2	20020426	JP 2000-311421	20001012
	JP 2002156768	A2	20020531	JP 2000-355340	20001122
	JP 2002169313	A2	20020614	JP 2000-366431	20001201
	JP 2002229233	A2	20020814	JP 2001-20876	20010130
	JP 2002229232	A2	20020814	JP 2001-20877	20010130

PATENT FAMILY INFORMATION:

FAN 2002:237137

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002091033	A2	20020327	JP 2000-281052	20000918
	US 2002051918	A1	20020502	US 2001-910916	20010724
	US 6489071	B2	20021203		
				JP 2000-224240	A 20000725
				JP 2000-243150	A 20000810
				JP 2000-250409	A 20000822
				JP 2000-281051	A 20000918
				JP 2000-281052	A 20000918
				JP 2000-311421	A 20001012
				JP 2000-355340	A 20001122
				JP 2000-366431	A 20001201
				JP 2001-20876	A 20010130
				JP 2001-20877	A 20010130

OS MARPAT 136:142582

AB The invention disclosed an electrophotosensitive material comprising an organic photosensitive layer and an inorg. surface protective layer, wherein at least the outermost part of the organic photosensitive layer contains a diphenylamine compound I (A is a group which can jointly form a  $\pi$ -electron conjugated system with the two Ph groups in the formula; R1 and R2 each represent an H atom, halogen atom, alkyl group, alkoxy group, etc., and R1 and R2 may form a condensed ring with the Ph group; m, n = 0-5). The electrophotosensitive material has excellent durability because compound I functions as a binder for combining the organic photosensitive layer with the inorg. surface protective layer so that the surface protective layer is less prone to suffer cracks or delamination.

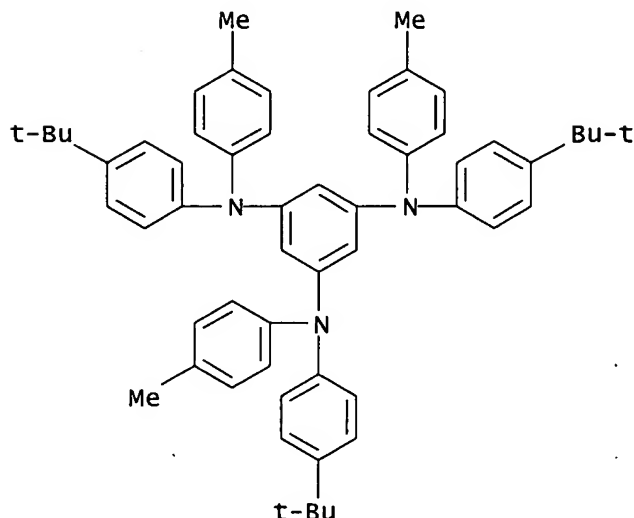
IT 393586-96-4

RL: TEM (Technical or engineered material use); USES (Uses)

(pos.-hole transport compound in electrophotog. material)

RN 393586-96-4 CAPLUS

CN 1,3,5-Benzenetriamine, N,N',N''-tris[4-(1,1-dimethylethyl)phenyl]-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:553887 CAPLUS

DN 133:321659

TI Synthesis of 1,3,5-tris[4-(diarylamino)phenyl]benzene and 1,3,5-tris(diarylamino)benzene derivatives

AU Plater, M. John; McKay, Murray; Jackson, Toby

CS Department of Chemistry, University of Aberdeen, Aberdeen, AB24 3UE, UK

SO Perkin 1 (2000), (16), 2695-2701

CODEN: PERKF9; ISSN: 1470-4358

PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 133:321659

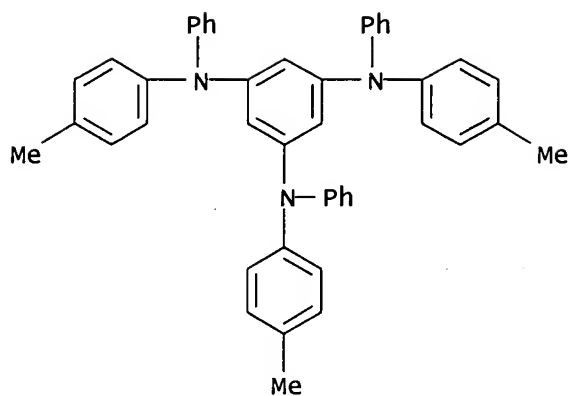
AB The title compds. were prepared by Cu-catalyzed Ullmann coupling of aromatic amines with aryl iodides. Full spectroscopic details are reported. Solns. of 1,3,5-tris(diarylamino)benzenes in CDCl<sub>3</sub> undergo H-D exchange on the central ring and readily turn green owing to partial oxidation by traces of dissolved O. The green color is quenched by the addition of ascorbic acid. The solns. are more stable in CHCl<sub>3</sub> that was filtered through basic alumina to remove traces of acid. N-arylbenzenesulfonamides are converted to diarylamines by treatment with the Na salt of an aniline.

IT 126717-25-7P 303051-45-8P 303051-47-0P

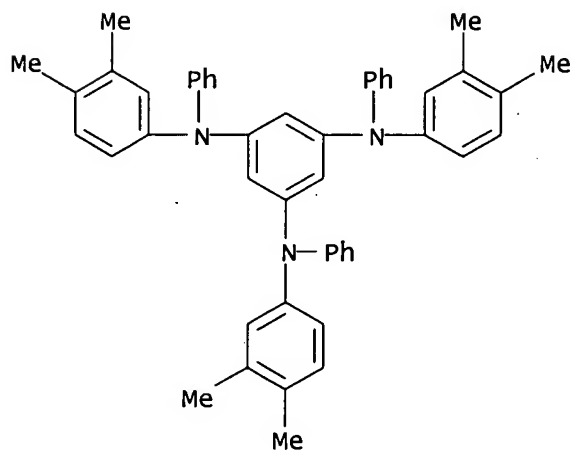
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of tris[(arylamino)phenyl]benzenes)

RN 126717-25-7 CAPLUS

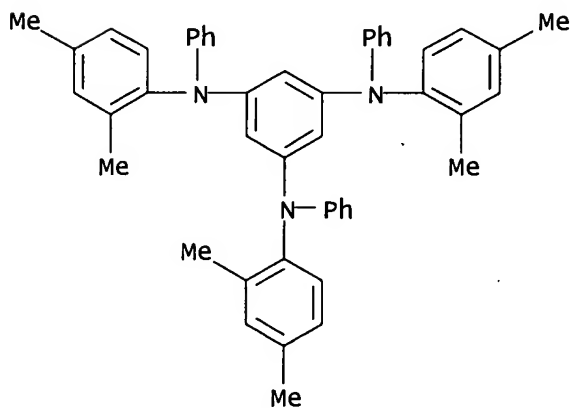
CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-triphenyl-  
(9CI) (CA INDEX NAME)



RN 303051-45-8 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(3,4-dimethylphenyl)-N,N',N''-triphenyl- (9CI) (CA INDEX NAME)



RN 303051-47-0 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(2,4-dimethylphenyl)-N,N',N''-triphenyl- (9CI) (CA INDEX NAME)



RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:137260 CAPLUS

DN 132:180365

TI Preparation of tris(aminobiphenylamino) compounds, their use as hole transporting agents, and their applications

IN Ueda, Hideaki; Fujino, Yasumitsu; Furukawa, Keiichi

PA Minolta Camera Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 62 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000063335	A2	20000229	JP 1998-230672	19980817
				JP 1998-230672	19980817

OS CASREACT 132:180365; MARPAT 132:180365

AB The title compds. I [A = trivalent organic group selected from 7 groups including 1,3,5-benzenetriyl, Q, Q1, Q2, etc.; Ar1 = (un)substituted aryl, heterocyclyl; R1, R2 = (un)substituted aralkyl, aryl, heterocyclyl or NR1R2 may be a cyclyl; R3 = H, alkyl] and 4 processes for the preparation of I are claimed. Also claimed are hole-transporting agents comprising I, and organic electroluminescent devices and electrophotog. photoreceptors containing I. A mixture of 1,3,5-C6H3(NHC6H4Me-4)3, 4-IC6H4C6H4NPh(C6H4Me-3)-4, K2CO3, Cu, 18-crown-6-ether, and o-C6H4Cl2 was refluxed for 24 h to give 41.4% I (A = 1,3,5-benzenetriyl, Ar1 = C6H4Me-4, R1 = Ph, R2 = C6H4Me-3, R3 = H) (II). A function-separated electrophotog. photoreceptor containing II in the charge-transporting layer was also fabricated.

IT 259541-42-9 259541-43-0

RL: DEV (Device component use); USES (Uses)

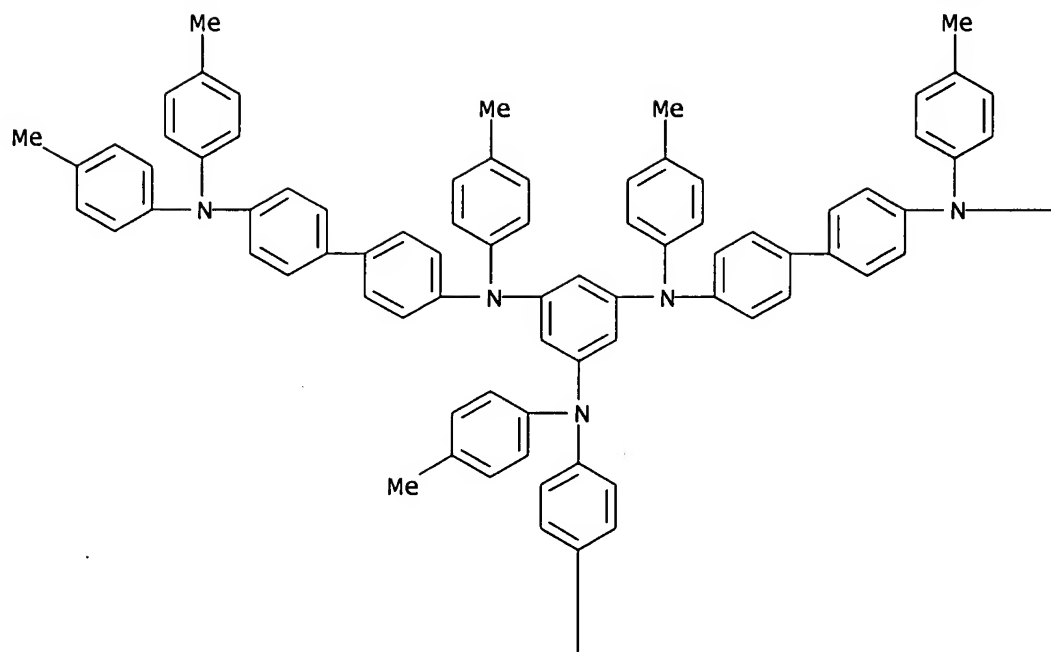
(preparation of tris(aminobiphenylamino) compds. as hole transporting agents for electroluminescent devices and electrophotog. photoreceptors)

RN 259541-42-9 CAPLUS

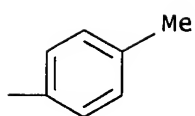
CN 1,3,5-Benzenetriamine, N,N',N''-tris[4'-[bis(4-methylphenyl)amino][1,1'-biphenyl]-4-yl]-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



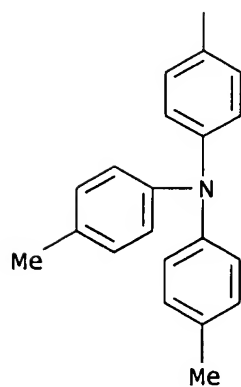
PAGE 1-A



PAGE 1-B

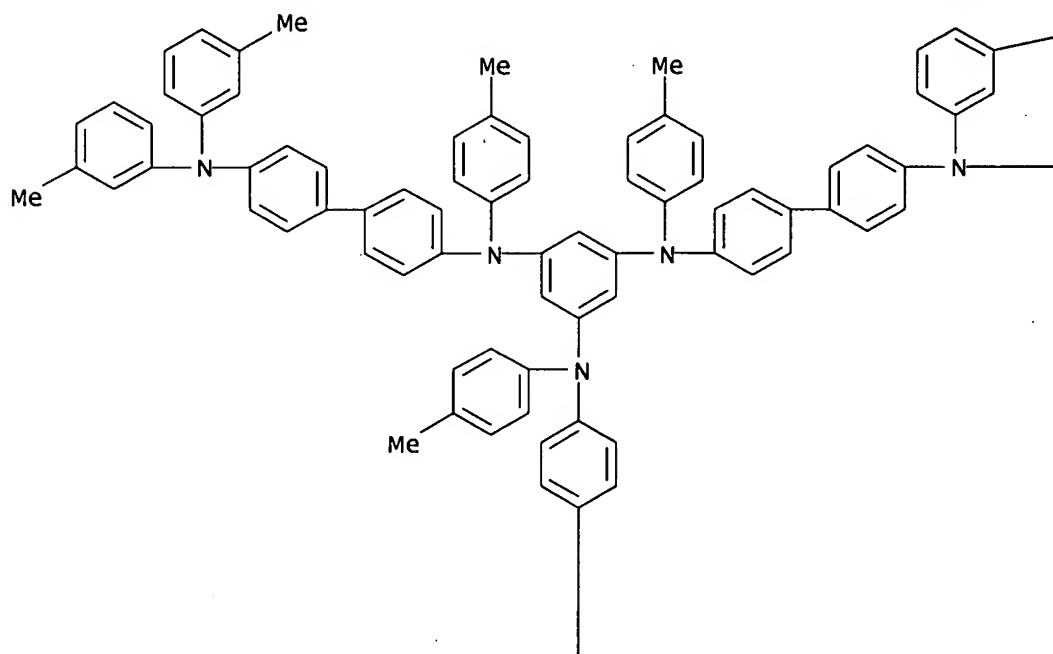


PAGE 2-A

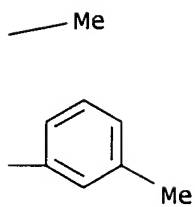


RN 259541-43-0 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris[4'-[bis(3-methylphenyl)amino][1,1'-biphenyl]-4-yl]-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)

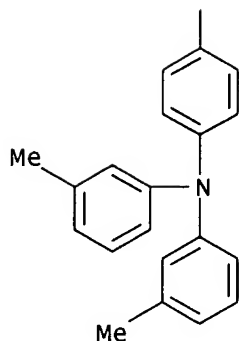
PAGE 1-A



PAGE 1-B

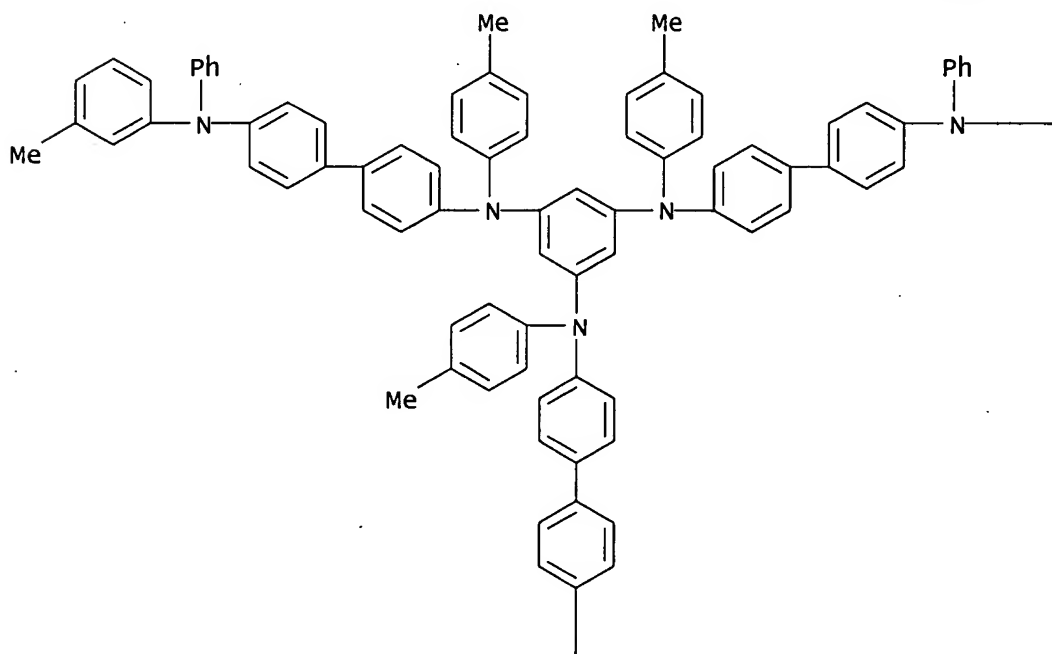


PAGE 2-A

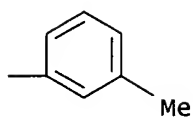


IT 259541-41-8P 259541-46-3P 259541-47-4P  
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP  
 (Preparation); USES (Uses)  
 (preparation of tris(aminobiphenylamino) compds. as hole transporting  
 agents for electroluminescent devices and electrophotog.  
 photoreceptors)  
 RN 259541-41-8 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-tris[4'-[(3-  
 methylphenyl)phenylamino][1,1'-biphenyl]-4-yl]- (9CI) (CA INDEX NAME)

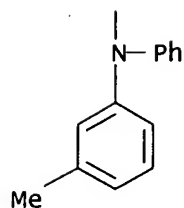
PAGE 1-A



PAGE 1-B

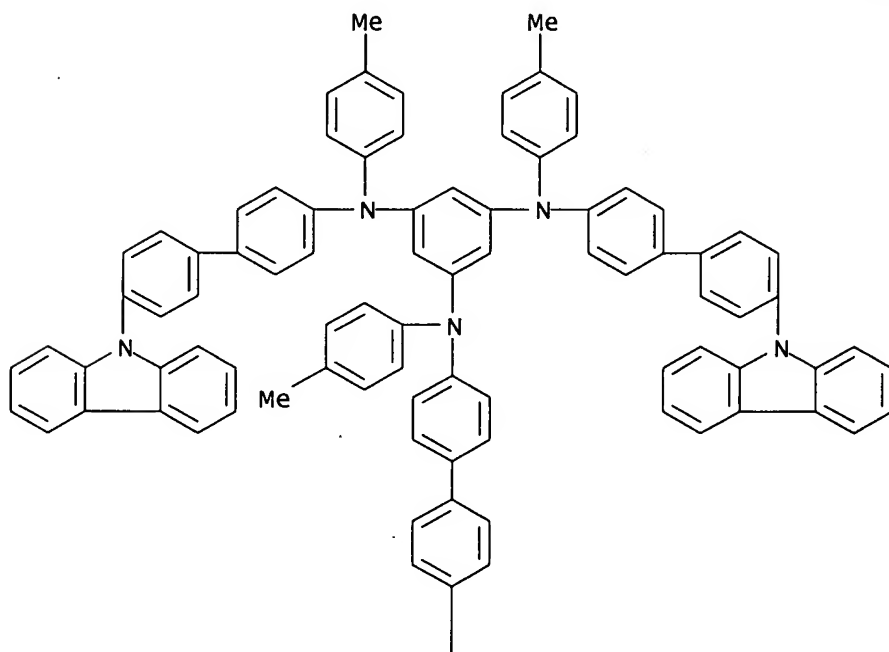


PAGE 2-A

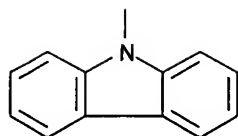


RN 259541-46-3 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris[4'-(9H-carbazol-9-yl)[1,1'-biphenyl]-4-yl]-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

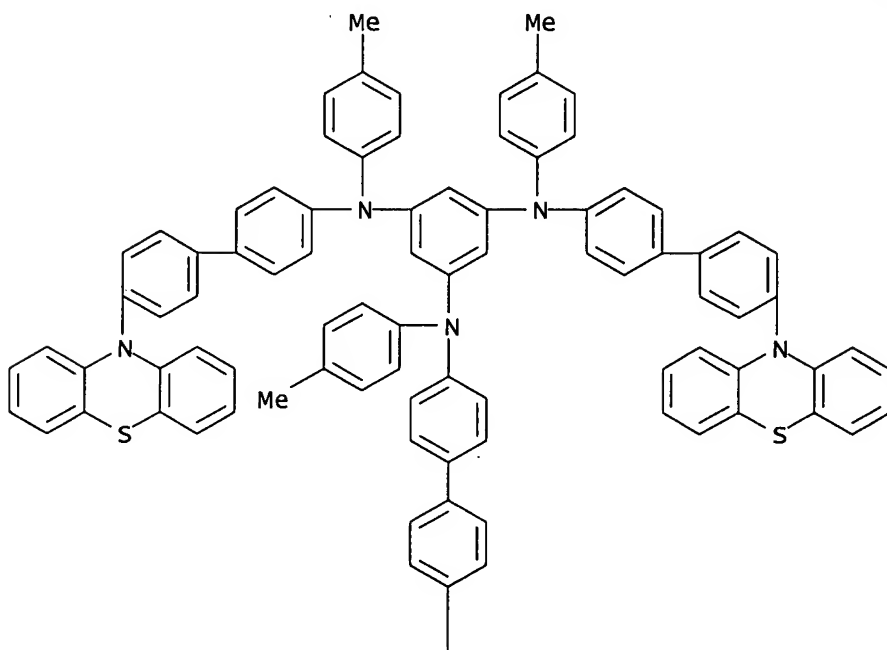


PAGE 2-A

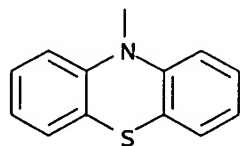


RN 259541-47-4 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-tris[4'-(10H-phenothiazin-10-yl)][1,1'-biphenyl]-4-yl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L4 ANSWER 13 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1999:638521 CAPLUS  
 DN 131:264582  
 TI Red-emitting organic electroluminescent device  
 IN Tanaka, Taizo; Toguchi, Itaru; Mori, Kenji  
 PA NEC Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11273866	A2	19991008	JP 1998-92224	19980323
	JP 3092584	B2	20000925		
	TW 415157	B	20001211	TW 1999-88104485	19990322
				JP 1998-92224	A 19980323
	US 6630253	B1	20031007	US 1999-274963	19990323
				JP 1998-92224	A 19980323

OS MARPAT 131:264582

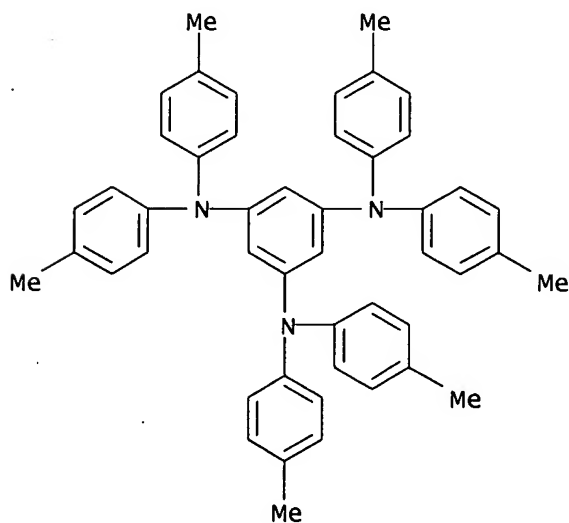
AB The invention relates to a red-emitting organic electroluminescent device, suited for use in making a flat light source and a display device, wherein the light-emitting layer comprises the compound represented by I [R1-8 = H, halo, OH, amino, etc.; two R's selected from R1-8 may be linked to form a ring; X = NH, O, and S].

IT 134257-64-0

RL: DEV (Device component use); USES (Uses)  
 (red-emitting organic electroluminescent device)

RN 134257-64-0 CAPLUS

CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)- (9CI)  
 (CA INDEX NAME)



L4 ANSWER 14 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:545352 CAPLUS

DN 131:206752

TI Organic electroluminescent device

IN Nakatsuka, Masakatsu; Kitamoto, Noriko

PA Mitsui Chemicals Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11233260	A2	19990827	JP 1998-37652	19980219

JP 3835918

B2 20061018

JP 1998-37652

19980219

OS MARPAT 131:206752

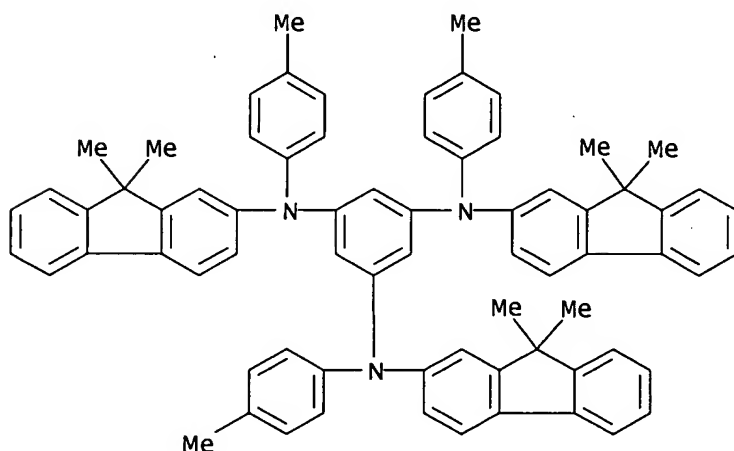
AB An organic electroluminescent device that has an improved operational stability, comprises a compound represented by I [Ar1-5 = aryl; Ar1,2 and Ar3,4 may form a heterocyclic ring together with the bonded nitrogen atom; R1,2 = H, alkyl, aryl, and aralkyl groups; Z1,2 = H, halo, alkyl, alkoxy, and aryl], sandwiched between a pair of electrodes.

IT 241149-52-0

RL: DEV (Device component use); USES (Uses)  
(organic electroluminescent device)

RN 241149-52-0 CAPLUS

CN 1,3,5-Benzenetriamine, N,N',N''-tris(9,9-dimethyl-9H-fluoren-2-yl)-  
N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 15 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:427231 CAPLUS

DN 131:122725

TI Organic electroluminescent devices

IN Nakatsuka, Masakatsu; Kitamoto, Noriko

PA Mitsui Chemicals Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 54 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11185965	A2	19990709	JP 1997-349759	19971218
	JP 3821562	B2	20060913		

JP 1997-349759

19971218

OS MARPAT 131:122725

AB The devices comprise I comprising a phosphor or a hole injection/transportation layer, where Ar1-8 = (substituted) aryl; Ar1,2, Ar3,4, Ar5,6 may form N-containing heterocyclic ring; R1,2 = H, (linear, branched, ring) aralkyl; (substituted) aryl, (substituted) aralkyl; Z1,2 = H, halo, (linear, branched ring) alkyl, alkoxy, (substituted) aryl; X = (substituted) arylene, -(A1-X11)m-A2- [A1,2 = (substituted) phenylene, (substituted) naphthylene, (substituted) fluorenediyl; X11 = single bond, O, S; m = 0, 1].

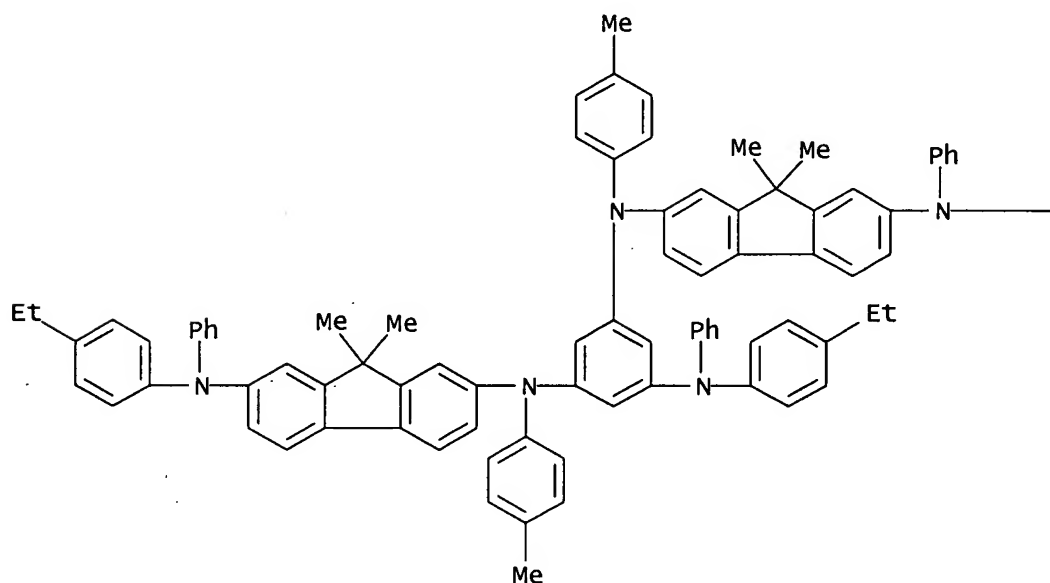
IT 232610-87-6

RL: PRP (Properties)  
(organic electroluminescent devices)

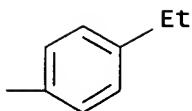
RN 232610-87-6 CAPLUS

CN 1,3,5-Benzenetriamine, N-(4-ethylphenyl)-N',N''-bis[7-[(4-ethylphenyl)phenylamino]-9,9-dimethyl-9H-fluoren-2-yl]-N',N''-bis(4-methylphenyl)-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

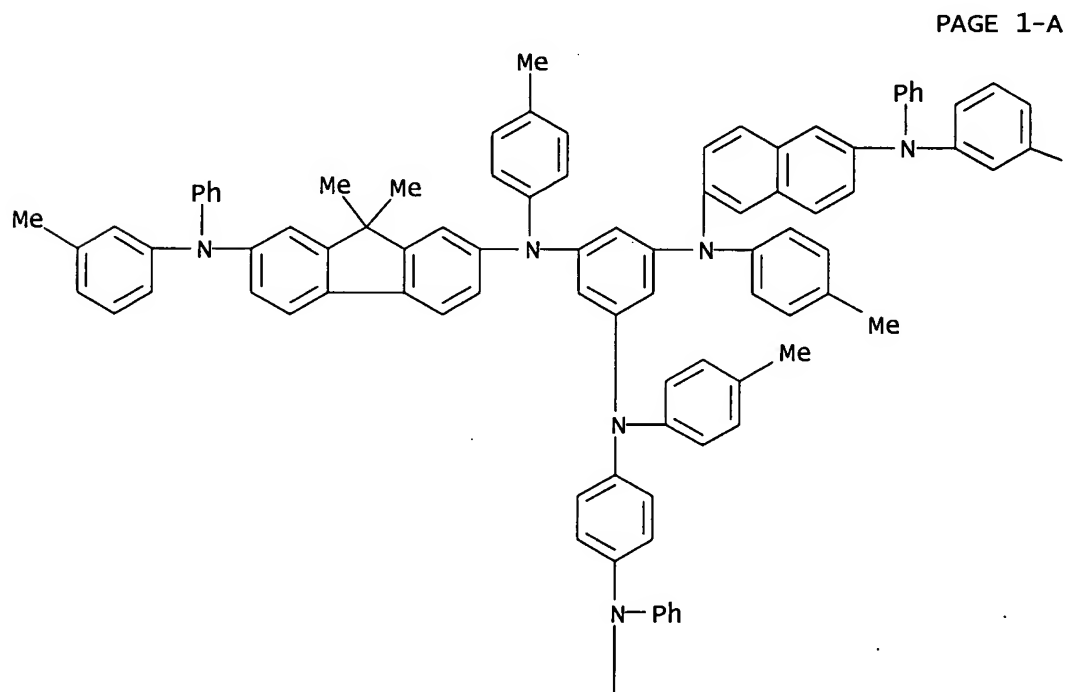


L4 ANSWER 16 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 1999:412900 CAPLUS  
DN 131:108753  
TI Organic electroluminescent device  
IN Nakatsuka, Masakatsu; Kitamoto, Noriko  
PA Mitsui Chemicals Inc., Japan  
SO Jpn. Kokai Tokkyo Koho, 67 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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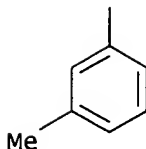


PI	JP 11176574 JP 3792031	A2 B2	19990702 20060628	JP 1997-340336 JP 1997-340336	19971210 19971210
OS	MARPAT 131:108753				
AB	An organic electroluminescent device comprises a compound represented by I [Ar1-9 = aryl group; (Ar1, Ar2), (Ar3, Ar4), and (Ar5, Ar6) may form heterocyclic ring including N bonded to them; R1,2 = H, alkyl, aryl, and aralkyl groups; Z1,2 = H, halo, alkyl, alkoxy, and aryl groups; and x1,2 = arylene group].				
IT	230963-66-3 RL: DEV (Device component use); USES (Uses) (hole-injection/transporting layer for organic electroluminescent device)				
RN	230963-66-3 CAPLUS				
CN	1,3,5-Benzenetriamine, N-[9,9-dimethyl-7-[(3-methylphenyl)phenylamino]-9H- fluoren-2-yl]-N,N',N''-tris(4-methylphenyl)-N'-[6-[(3- methylphenyl)phenylamino]-2-naphthalenyl]-N''-[4-[(3- methylphenyl)phenylamino]phenyl]- (9CI) (CA INDEX NAME)				



PAGE 1-B

Me



L4 ANSWER 17 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1999:412898 CAPLUS  
 DN 131:108713  
 TI Organic electroluminescent device elements  
 IN Suzuki, Toshiyasu; Tanaka, Taizo; Higashiguchi, Itaru; Oda, Atsushi  
 PA NEC Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 23 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11176572	A2	19990702	JP 1997-337260	19971208
	JP 3011165	B2	20000221		
				JP 1997-337260	19971208

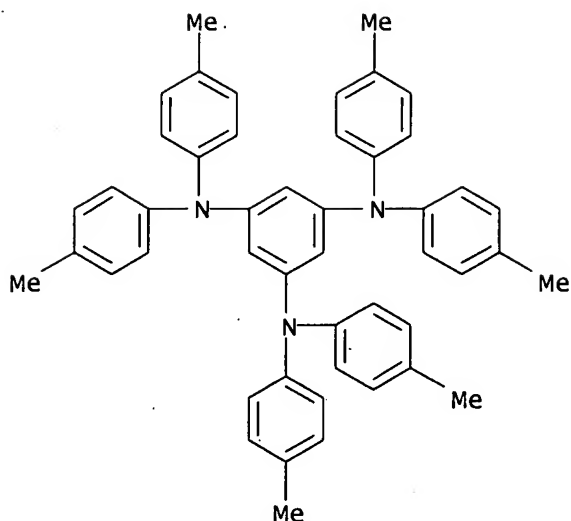
OS MARPAT 131:108713  
 AB A phosphor of the elements comprises: a 5-cyanopromethane-BF<sub>2</sub> complex I; Ar<sub>1</sub>-3N; Ar<sub>1,2</sub>N<sub>Y</sub>N<sub>Ar3,4</sub>; (N<sub>Ar1,2</sub>)(N<sub>Ar3,4</sub>)(N<sub>Ar5,6</sub>)Z [Ar<sub>1</sub>-6 = (substituted) aromatic hydrocarbon, (substituted) aromatic heterocyclic; Z = trivalent (substituted) aromatic hydrocarbon, trivalent (substituted) aromatic heterocyclic; any two of Ar<sub>1</sub>-6 may form a ring]; II [L<sub>1</sub> = (substituted) alkyl, (substituted) alkenyl, (substituted) cycloalkyl, (substituted) aromatic hydrocarbon, (substituted) aromatic heterocyclic; (substituted) aralkyl; n = 1-3; m = 0-2; M = (n+M) valent metal ion]; and/or III [R<sub>1</sub>-24 = H, halo, OH, (substituted) amino, nitro, cyano, (substituted) alkenyl, (substituted) cycloalkyl, (substituted) alkoxy, (substituted) aromatic hydrocarbon, (substituted) aromatic heterocyclic, (substituted) aralkyl, (substituted) aryloxy, (substituted) alkoxycarbonyl, carboxy; any two of R<sub>1</sub>-24 may form a ring; L<sub>2</sub> = (substituted) alkylene, (substituted) alkenylene; (substituted) cycloalkylene, (substituted) arylene, (substituted) aralkylene; l = 0, 1; s = 1, 2; M = (s + 1) valent metal ion].

IT 134257-64-0

RL: PRP (Properties)  
 (organic electroluminescent device elements)

RN 134257-64-0 CAPLUS

CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)- (9CI)  
 (CA INDEX NAME)



L4 ANSWER 18 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1999:341108 CAPLUS  
 DN 131:51819  
 TI Organic electroluminescent device containing perylene compound  
 IN Higashiguchi, Itaru; Oda, Atsushi; Suzuki, Toshiyasu; Tanaka, Taizo  
 PA NEC Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 26 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11144870	A2	19990528	JP 1997-304207	19971106
	JP 3104223	B2	20001030		
				JP 1997-304207	19971106

OS MARPAT 131:51819

AB The device has a cathode and an anode sandwiching a light-emitting layer-containing organic thin film layer containing a perylene compound I  
 (R1-8 = H,

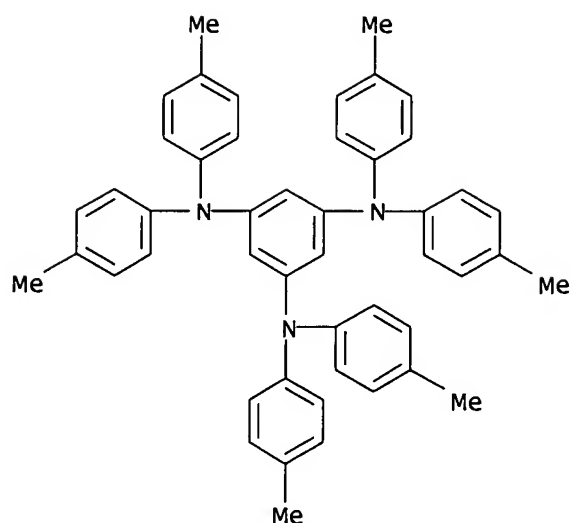
halogen, OH, NH<sub>2</sub>, NO<sub>2</sub>, cyano, alkyl, alkenyl, cycloalkyl, alkoxy, aromatic hydrocarbon, aromatic heterocyclic, aralkyl, aryloxy, alkoxy carbonyl, CO<sub>2</sub>H; R1-R8 may bond to form a ring; X = alkyl, alkenyl, cycloalkyl, aromatic hydrocarbon, aromatic heterocyclic, aralkyl). The device shows high luminance and high color purity.

IT 134257-64-0P

RL: DEV (Device component use); IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (red-light-emitting electroluminescent device containing perylene compound)

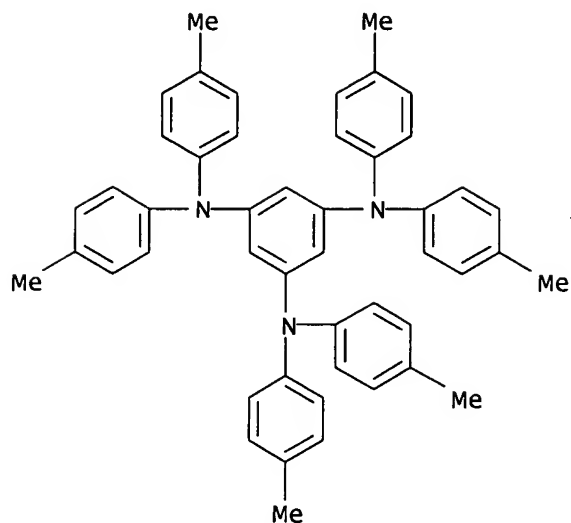
RN 134257-64-0 CAPLUS

CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)- (9CI)  
 (CA INDEX NAME)



- L4 ANSWER 19 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1998:725916 CAPLUS  
 DN 130:66107  
 TI Substituent effects on the electrochemical oxidation of  
 N,N',N''-triphenyl-1,3,5-triaminobenzenes  
 AU Glatzhofer, Daniel T.; Morvant, Mark C.  
 CS Department of Chemistry and Biochemistry and Center for Electronic and  
 Photonic Materials and Devices, The University of Oklahoma, Norman, OK,  
 73019, USA  
 SO Journal of Physical Organic Chemistry (1998), 11(10), 731-736  
 CODEN: JPOCEE; ISSN: 0894-3230  
 PB John Wiley & Sons Ltd.  
 DT Journal  
 LA English  
 AB Correlation anal. of the oxidation potentials of N,N',N''-triphenyl-1,3,5-  
 triaminobenzenes (TPABs) substituted at the para positions of the outer Ph  
 rings shows a linear free energy relation with resonance-enhanced  
 substituent parameters ( $\sigma^+$ ). Reaction parameters ( $\rho^+$ ) for  
 oxidation of TPABs are -1.53, -1.45, and -1.34 (per substituent) in CH<sub>2</sub>Cl<sub>2</sub>,  
 MeCN and propylene carbonate resp. The resonance enhancement and small  
 magnitude of the  $\rho^+$  values are related to a significant but weak  
 delocalization of charge onto the outer Ph rings in the MOs of radical  
 cations resulting from the oxidation of TPABs. Data on the oxidation of  
 p-substituted triphenylamines were treated similarly and gave a  $\rho^+$   
 value of -3.27 (per substituent) in MeCN, greater than that for TPABs  
 owing to a more significant delocalization of charge onto the Ph rings in  
 the MOs of the corresponding radical cations. To demonstrate their  
 predictive value, these linear free energy correlations were used to estimate  
 the oxidation potentials of similarly substituted N,N',N',N',N',N''-  
 hexaphenyl-1,3,5-triaminobenzenes, which are of interest as building  
 blocks for mol. magnetic materials.  
 IT 165820-85-9  
 RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation,  
 nonpreparative)  
 (estimated reaction property for application to use in magnetic materials;  
 substituent effects on electrochem. oxidation of N,N',N''-triphenyl-1,3,5-  
 triaminobenzenes)  
 RN 165820-85-9 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N',N',N',N''-hexakis(4-methylphenyl)-, radical

ion(1+) (9CI) (CA INDEX NAME)

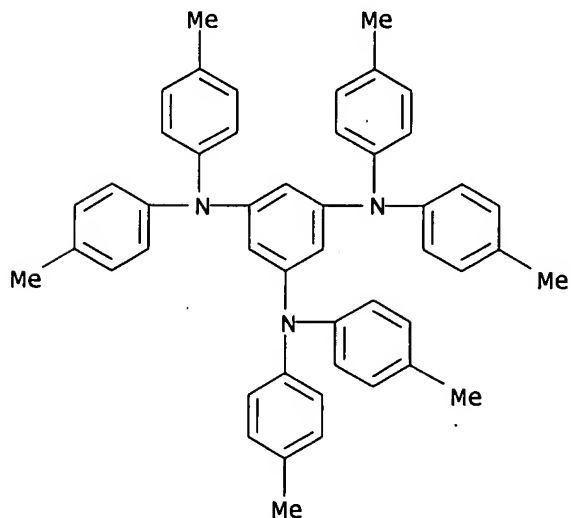


IT 134257-64-0

RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
(estimated reaction property for application to use in magnetic materials; substituent effects on electrochem. oxidation of N,N',N''-triphenyl-1,3,5-triaminobenzenes)

RN 134257-64-0 CAPLUS

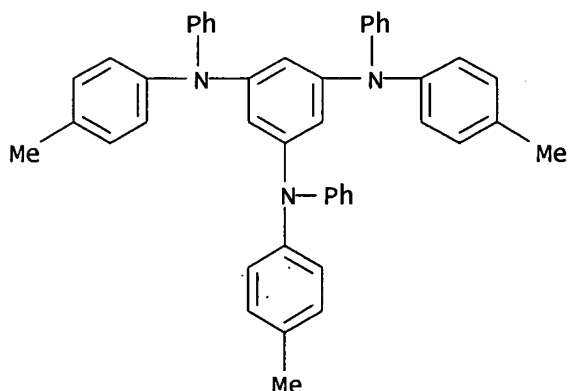
CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)- (9CI)  
(CA INDEX NAME)



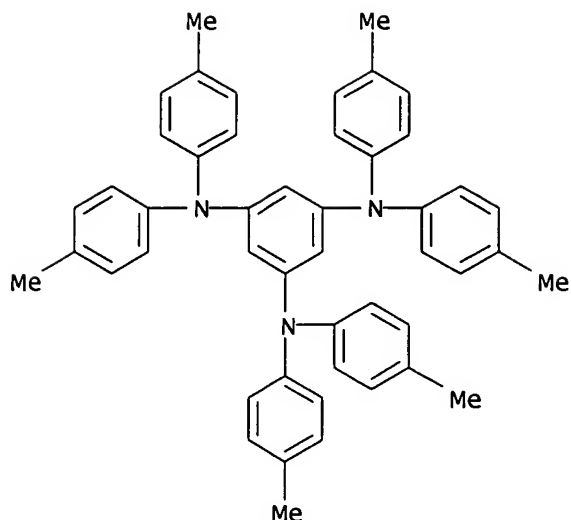
RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 20 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 1997:747525 CAPLUS  
DN 128:75007

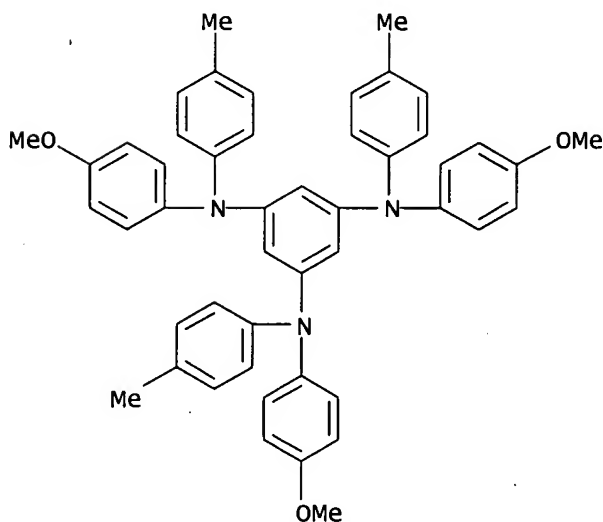
TI Models for charged organic high-spin systems; synthesis and cyclic voltammetry of one- and two-dimensional diarylamino benzenes  
 AU Yano, Masafumi; Furuichi, Mutsuo; Sato, Kazunobu; Shiomi, Daisuke; Ichimura, Akio; Abe, Kyo; Taku, Takeji; Itoh, Koichi  
 CS Department Chemistry, Faculty Science, Osaka City University, Osaka, 558, Japan  
 SO Molecular Crystals and Liquid Crystals Science and Technology, Section A: Molecular Crystals and Liquid Crystals (1997), 306, 501-506  
 CODEN: MCLCE9; ISSN: 1058-725X  
 PB Gordon & Breach Science Publishers  
 DT Journal  
 LA English  
 OS CASREACT 128:75007  
 AB A series of 1,3-bis- (DABs) and 1,3,5-tris(diarylamino)benzenes (TABs) were synthesized as model precursors for polycationic  $\pi$ -conjugated high-spin systems. CV measurements at low temperature showed that the chemical stability in solution of mono- and polycationic oxidation states of the various DABs and TABs derivs. depend on their structures. Correlation between the chemical stability of these cations and their mol. structure is discussed.  
 IT 126717-25-7P 134257-64-0P 189764-91-8P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis and cyclic voltammetry of one- and two-dimensional diarylamino benzenes as models for charged organic high-spin systems)  
 RN 126717-25-7 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-triphenyl- (9CI) (CA INDEX NAME)



RN 134257-64-0 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)- (9CI)  
 (CA INDEX NAME)



RN 189764-91-8 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methoxyphenyl)-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1997:249934 CAPLUS  
 DN 126:343347  
 TI Models for positive charge fluctuation vs. spin polarization in organic systems; synthesis and cyclic voltammetry of 2D and 1D hyperbranched  $\pi$ -aryl-based amines  
 AU Yano, M.; Furuichi, M.; Sato, K.; Shiomi, D.; Ichimura, A.; Abe, K.; Takui, T.; Itoh, K.  
 CS Department of Chemistry, Faculty of Science, Osaka City University, Sumiyoshi-ku, Osaka, 558, Japan  
 SO Synthetic Metals (1997), 85(1-3), 1665-1666

CODEN: SYMEDZ; ISSN: 0379-6779

PB Elsevier

DT Journal

LA English

AB A series of substituted N,N,N',N',N'',N''-hexaphenyl-1,3,5-benzenetriamine (TAB) I (R = H, Cl, F, Me, OMe; R1 = H, Cl, F, Me, OMe, CF3) and N,N,N',N'-tetraphenyl-1,3-benzenediamine (DAB) II (same R; R2 = H, Me) were synthesized as models for pos. charged fluctuation vs. spin polarization in organic systems. CV measurements at low temperature showed

that the chemical stability-in-solution of mono and poly-cationic oxidation states of

the various HPTABS and TPDABS derivs. depend on their mol. structures and substituents.

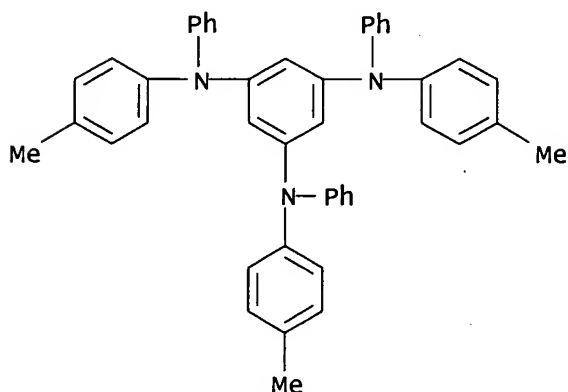
IT 126717-25-7 134257-64-0 189764-91-8

RL: PRP (Properties)

(preparation of phenylbenzenetriamines and phenylbenzenediamines as pos. charge fluctuation and spin polarization models)

RN 126717-25-7 CAPLUS

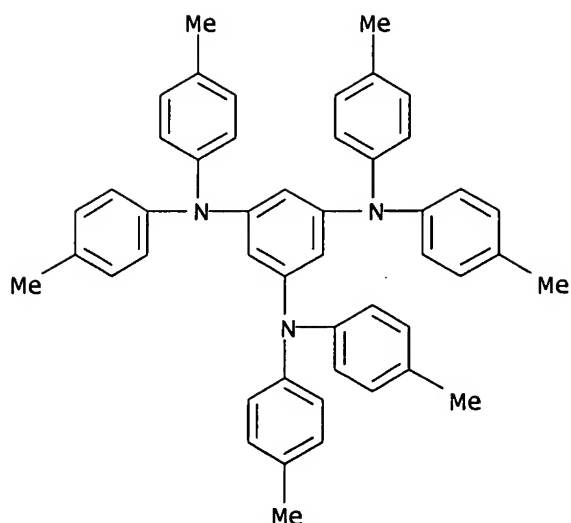
CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-triphenyl- (9CI) (CA INDEX NAME)



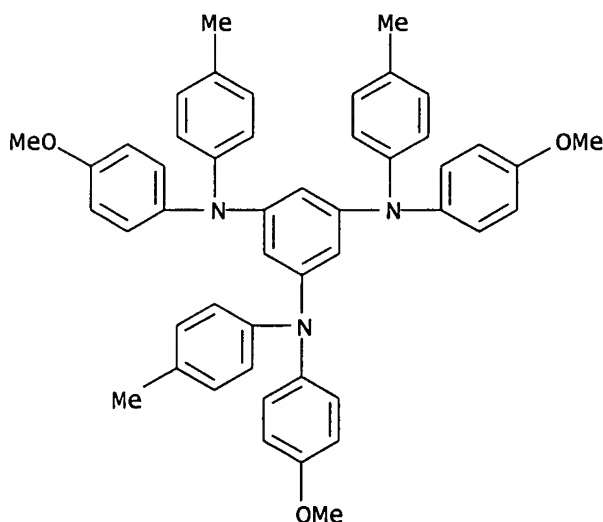
RN 134257-64-0 CAPLUS

CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)- (9CI) (CA INDEX NAME)





RN 189764-91-8 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methoxyphenyl)-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 22 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1996:73807 CAPLUS  
 DN 124:215993  
 TI Electrophotographic photoreceptor containing triphenylamine derivative as charge-transporting agent  
 IN Sumita, Keisuke; Muto, Nariaki; Kadoi, Mikio; Kamigaichi, Toshikazu; Saito, Sakae; Uchida, Masanori  
 PA Mita Industrial Co Ltd, Japan  
 SO Jpn. Kokai Tokkyo Koho, 20 pp.  
 CODEN: JKXXAF  
 DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07306535	A2	19951121	JP 1994-98884	19940512
				JP 1994-98884	19940512

OS MARPAT 124:215993

AB The photoreceptor comprises an elec. conductive support coated with a photosensitive layer containing a charge-generating agent and a triphenylamine derivative I (R1-9 = H, halo, C1-4 alkyl, C7-12 aralkyl, C1-4 alkoxy, C6-18 aryl) as a charge-transporting agent. The charge-generating agent may be a perylene pigment, a phthalocyanine pigment, or a bisazo pigment. The photoreceptor shows high sensitivity.

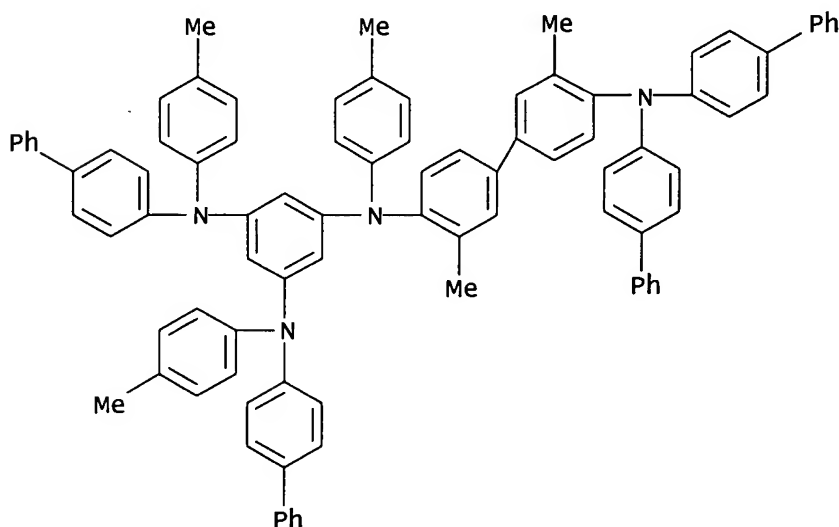
IT 174407-08-0

RL: DEV (Device component use); USES (Uses)

(charge-transporting agent; electrophotog. photoreceptor containing triphenylamine derivative as charge-transporting agent)

RN 174407-08-0 CAPLUS

CN 1,3,5-Benzenetriamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N''-[4'-[bis([1,1'-biphenyl]-4-yl)amino]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]-N,N',N''-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



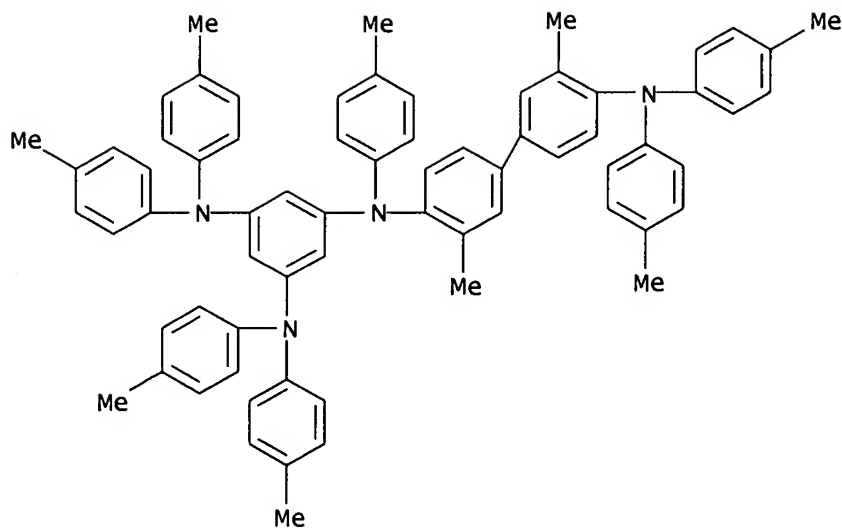
IT 174407-05-7P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

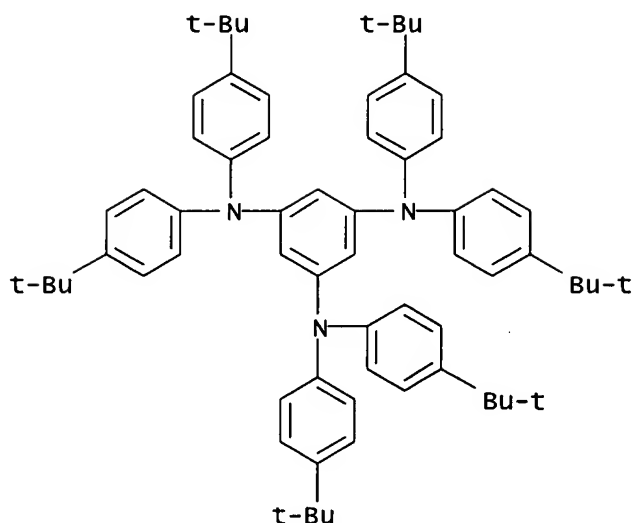
(charge-transporting agent; electrophotog. photoreceptor containing triphenylamine derivative as charge-transporting agent)

RN 174407-05-7 CAPLUS

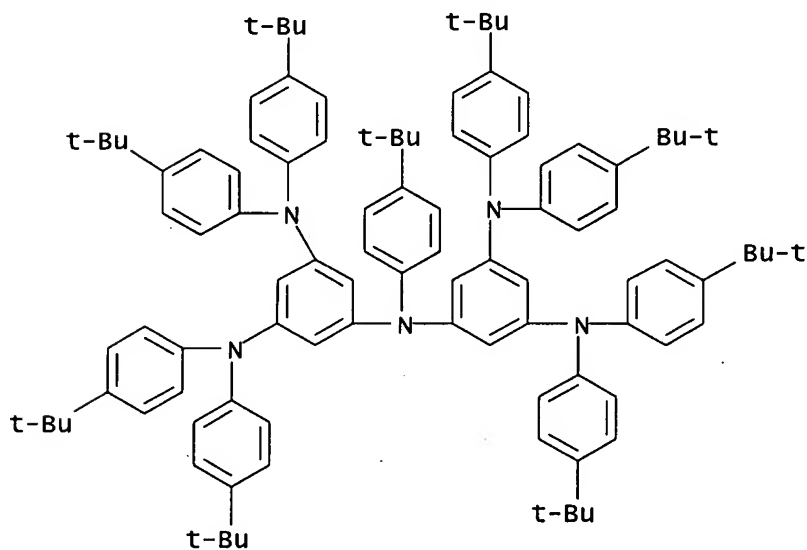
CN 1,3,5-Benzenetriamine, N-[4'-[bis(4-methylphenyl)amino]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]-N,N',N'',N''',N''''-pentakis(4-methylphenyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 23 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1995:948472 CAPLUS  
 DN 124:145515  
 TI Syntheses and redox properties of di-, tri-, tetra-, and pentaamines  
 AU Sasaki, Shigeru; Iyoda, Masahiko  
 CS Dep. Chem., Tokyo Metropolitan Univ., Hachioji, 192-03, Japan  
 SO Chemistry Letters (1995), (11), 1011-12  
 CODEN: CMLTAG; ISSN: 0366-7022  
 PB Nippon Kagakkai  
 DT Journal  
 LA English  
 AB A series of di-, tri-, tetra-, and pentaamines were synthesized as precursors for corresponding di-, tri-, tetra-, and penta(aminium radical-cations) by the aryl-N bond formation reaction between aryl iodides and in situ prepared copper amide in refluxing pyridine. Cyclic voltammograms of meta-connected derivs. consisted of irreversible waves which imply side reactions in addition to oxidation of aminium radical-cations.  
 IT 165820-83-7P 173314-14-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 165820-83-7 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis[4-(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 173314-14-2 CAPLUS  
 CN 1,3,5-Benzenetriamine, N-[3,5-bis[bis[4-(1,1-dimethylethyl)phenyl]amino]phenyl]-N,N',N',N'',N''-pentakis[4-(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 24 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1995:943391 CAPLUS  
 DN 124:145314  
 TI High-spin polycations of a triminobenzene  
 AU Stickley, Kurt R.; Blackstock, Silac C.  
 CS Department Chemistry, Vanderbilt University, Nashville, TN, 37235, USA  
 SO Molecular Crystals and Liquid Crystals Science and Technology, Section A: Molecular Crystals and Liquid Crystals (1995), 272(Proceedings of the Fourth International Conference on Molecule-Based Magnets, 1994, Pt. 2), 303-7  
 CODEN: MCLCE9; ISSN: 1058-725X

PB Gordon &amp; Breach

DT Journal

LA English

AB A symposium. Organic poly radical ions are mol. spin units which could be used in the construction of magnetic materials. They possess the feature of redox activation / deactivation, a potential means of reversibly controlling the mol. spin state of the unit, thus imparting a magnetic switch function. Here, we described the prospect of preparing tris(arylamines) suitably structured to yield long-lived cation, dication, and trication states of successively higher spin multiplicity. The preparation and oxidation of N,N,N',N',N'',N'''-hexa-p-anisyl-1,3,5-triaminobenzene (HATAB) are discussed, along with the ESR spectra of the HATAB higher oxidation states. The HATAB2+ and HATAB3+ ESR signals are assigned to triplet and quartet states resp. which, on the basis of cursory Curie-Weiss data, are tentatively assigned as the ground states of these poly cations, consistent with calculational results (AM1/UHF) on the unsubstituted system, 1,3,5-triaminobenzene dication and trication.

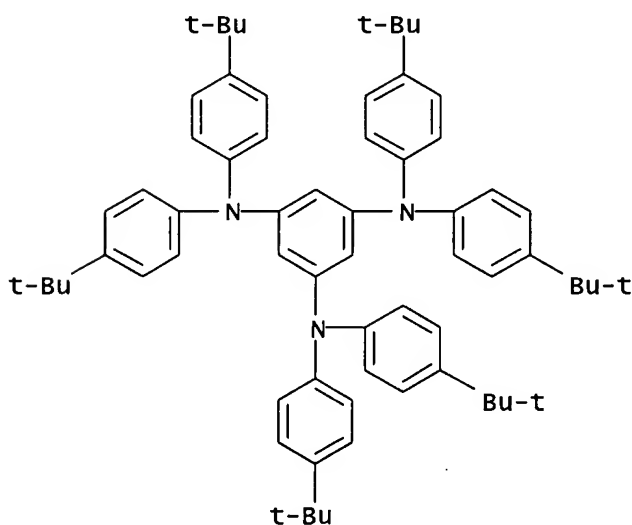
IT 165820-84-8 165820-85-9

RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)

(high-spin polycations of triminobenzene derivative)

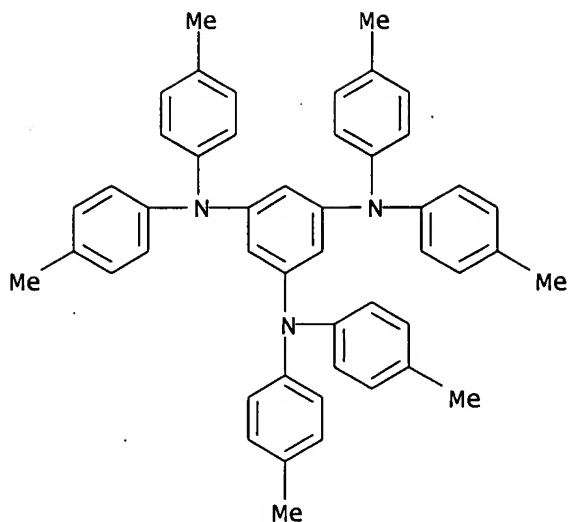
RN 165820-84-8 CAPLUS

CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N'''-hexakis[4-(1,1-dimethylethyl)phenyl]-, radical ion(1+) (9CI) (CA INDEX NAME)

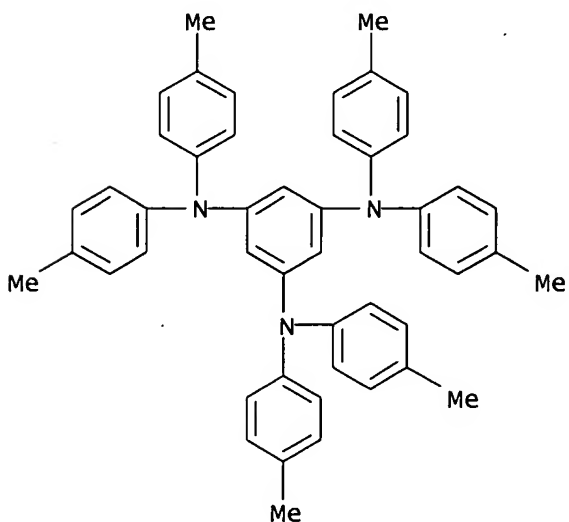


RN 165820-85-9 CAPLUS

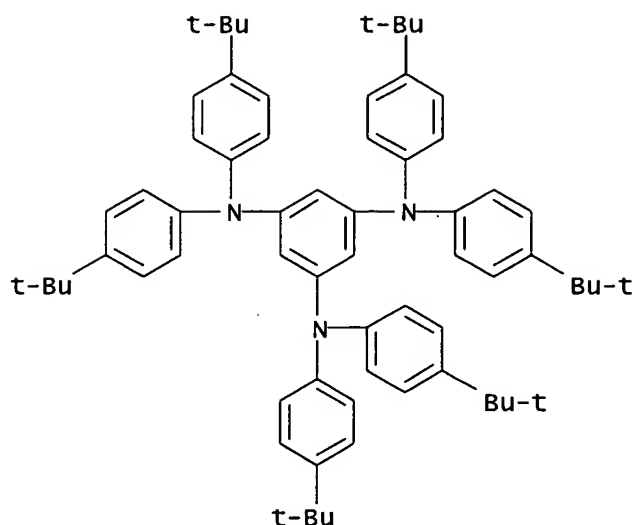
CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N'''-hexakis(4-methylphenyl)-, radical ion(1+) (9CI) (CA INDEX NAME)



IT 134257-64-0 165820-83-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (high-spin polycations of triminobenzene derivative)  
 RN 134257-64-0 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)- (9CI)  
 (CA INDEX NAME)



RN 165820-83-7 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis[4-(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 25 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:499833 CAPLUS

DN 123:32768

TI Preparation of tris(diarylamino)benzenes as additives for resins, photosensitizers, or luminescent materials

IN Fukumura, Takanori; Wada, Masaru; Nagata, Teruyuki

PA Mitsui Toatsu Chemicals, Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07033717	A2	19950203	JP 1993-179715	19930721
	JP 3177351	B2	20010618		
				JP 1993-179715	19930721

OS CASREACT 123:32768; MARPAT 123:32768

AB The title compds. I (R, R1 = H, lower alkyl), useful as additives for resins, photosensitizers, luminescent materials, etc. (no data), are prepared by reaction of tris(arylamino)benzenes II (R = H, lower alkyl) with cyclohexanones III (R1 = H, lower alkyl) in the presence of H transfer catalysts. A mixture of II (R = H), cyclohexanone, Pd/C, propionic acid, and PhOH was stirred at 180-190° for 20 h to give 65.4% I (R = R1 = H).

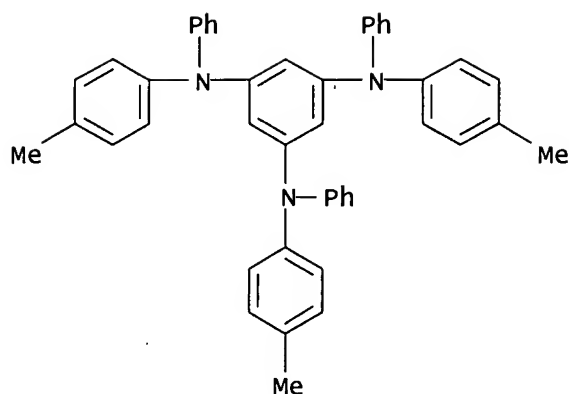
IT 126717-25-7P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of tris(diarylamino)benzenes from tris(arylamino)benzenes and cyclohexanones with H transfer catalysts)

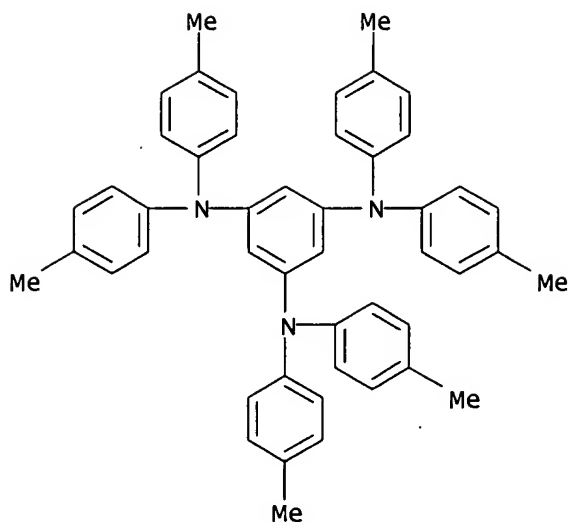
RN 126717-25-7 CAPLUS

CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-triphenyl- (9CI) (CA INDEX NAME)

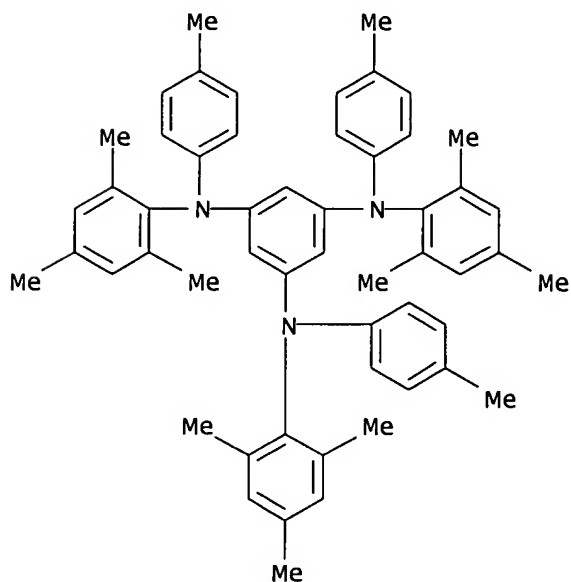


L4 ANSWER 26 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1995:439876 CAPLUS  
 DN 123:111466  
 TI Cation radicals of 1,3,5-tris(diarylamino)benzenes  
 AU Stickley, Kurt R.; Blackstock, Silas C.  
 CS Department of Chemistry, Vanderbilt Univ., Nashville, TN, 37235, USA  
 SO Tetrahedron Letters (1995), 36(10), 1585-8  
 CODEN: TELEAY; ISSN: 0040-4039  
 PB Elsevier  
 DT Journal  
 LA English  
 AB Cyclic voltammetry and ESR reveal the nature of the cation radicals of some 1,3,5-tris(diarylamino)benzenes. Results show effectively delocalized radical cations with long solution lifetimes in cold media but with much less kinetic stability at ambient temperature than their monomeric triarylammonium cation radical counterparts. Intramol. ortho coupling, perhaps via disproportionation, is a postulated cation radical decay mode.  
 IT 134257-64-0P, 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl) 165820-82-6P 165820-83-7P 165820-84-8P 165820-85-9P 165905-29-3P 165967-01-1P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and properties of aryl-1,3,5-benzenetriamine radical cations)  
 RN 134257-64-0 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)- (9CI) (CA INDEX NAME)

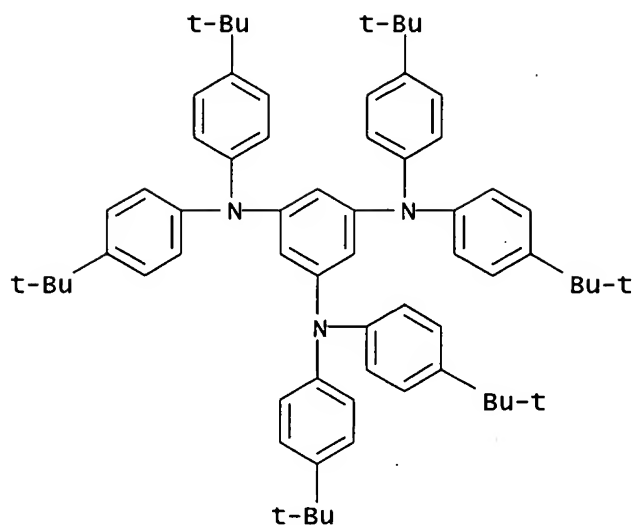




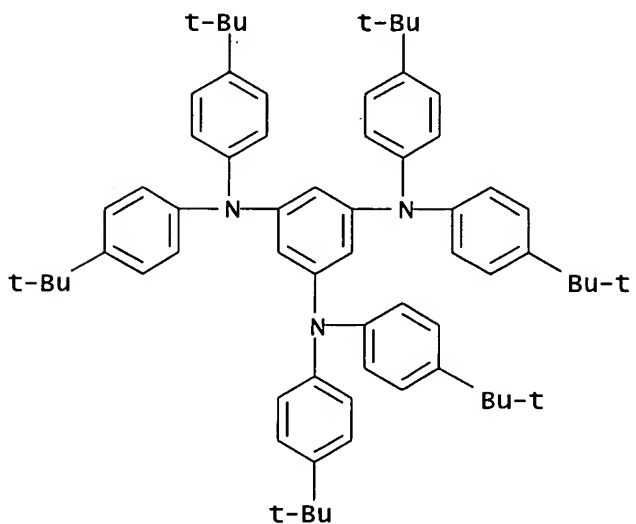
RN 165820-82-6 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-tris(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



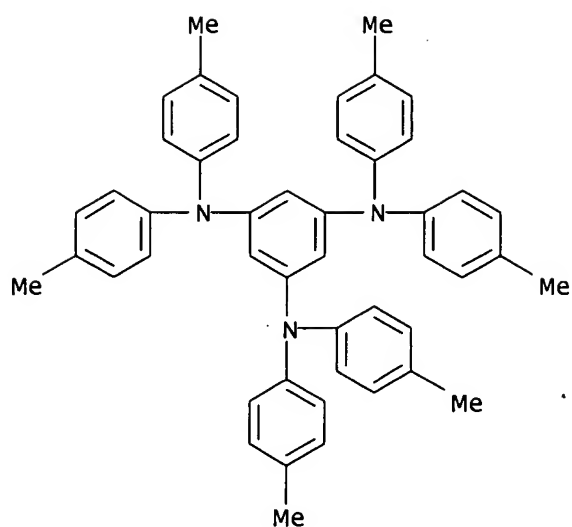
RN 165820-83-7 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis[4-(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)



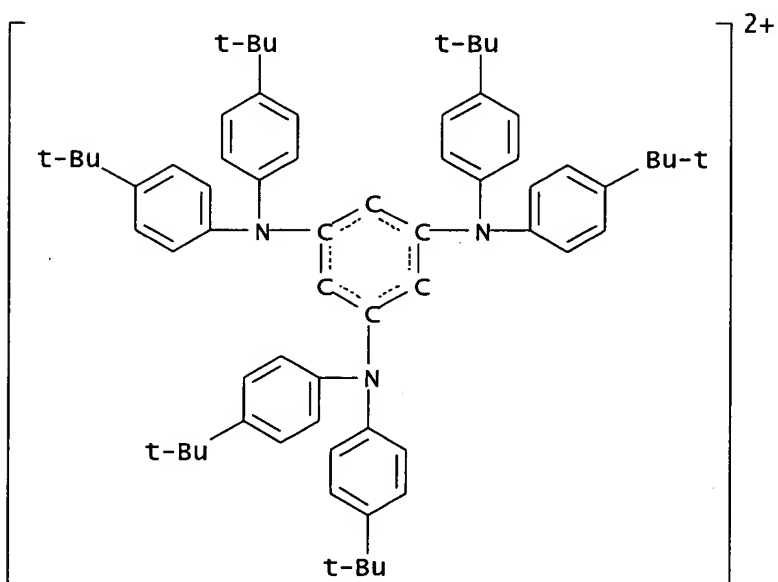
RN 165820-84-8 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis[4-(1,1-dimethylethyl)phenyl]-, radical ion(1+) (9CI) (CA INDEX NAME)



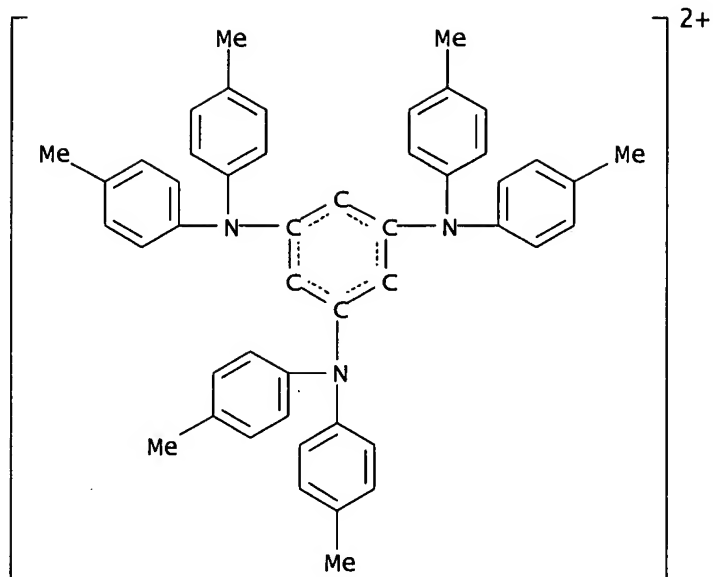
RN 165820-85-9 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)-, radical ion(1+) (9CI) (CA INDEX NAME)



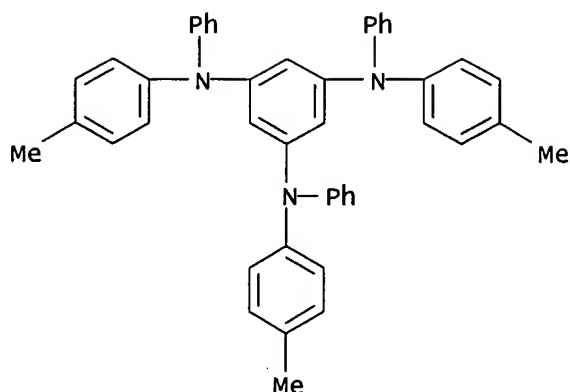
RN 165905-29-3 CAPLUS  
 CN Cyclohexadienediylum, 1,3,5-tris[bis[4-(1,1-dimethylethyl)phenyl]amino]-  
 (9CI) (CA INDEX NAME)



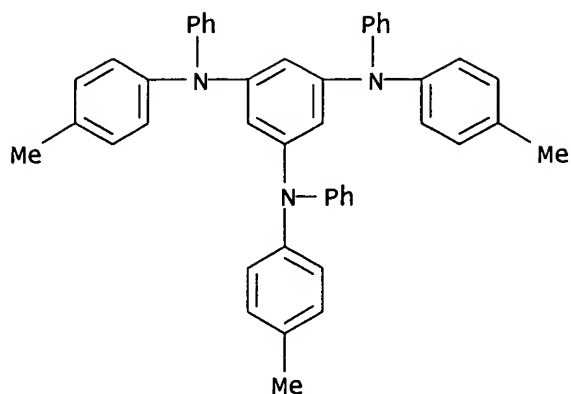
RN 165967-01-1 CAPLUS  
 CN Cyclohexadienediylum, 1,3,5-tris[bis(4-methylphenyl)amino]- (9CI) (CA  
 INDEX NAME)



L4 ANSWER 27 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1993:682630 CAPLUS  
 DN 119:282630  
 TI Polymorphism of starburst molecules: methyl-substituted derivatives of  
 1,3,5-tris(diphenylamino)benzene  
 AU Ishikawa, Wataru; Inada, Hiroshi; Nakano, Hideyuki; Shirota, Yasuhiko  
 CS Fac. Eng., Osaka Univ., Suita, 565, Japan  
 SO Journal of Physics D: Applied Physics (1993), 26(8B), B94-B99  
 CODEN: JPAPBE; ISSN: 0022-3727  
 DT Journal  
 LA English  
 AB Starburst mols. based on  $\pi$ -electron systems for making amorphous mol.  
 materials, 1,3,5-tris(2-methylphenylphenylamino)benzene and  
 1,3,5-tris(4-methylphenylphenylamino)benzene, show polymorphism depending  
 upon the history of heat treatment which involves crystallization via amorphous  
 glasses as characterized by differential scanning calorimetry, x-ray  
 diffraction, and polarizing microscopy.  
 IT 126717-25-7, 1,3,5-Tris(4-methylphenylphenylamino)benzene  
 RL: PROC (Process)  
 (polymorphism of starburst mols.)  
 RN 126717-25-7 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-triphenyl-  
 (9CI) (CA INDEX NAME)



L4 ANSWER 28 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1993:429951 CAPLUS  
 DN 119:29951  
 TI Molecular design for nonpolymeric organic dye glasses with thermal stability: relations between thermodynamic parameters and amorphous properties  
 AU Naito, Katsuyuki; Miura, Akira  
 CS Res. Dev. Center, Toshiba Corp., Kawasaki, 210, Japan  
 SO Journal of Physical Chemistry (1993), 97(23), 6240-8  
 CODEN: JPCHAX; ISSN: 0022-3654  
 DT Journal  
 LA English  
 AB The mol. structures of low-mol.-weight organic compds. and their amorphous properties were investigated to obtain a design rule for uniform amorphous films with high thermal stability. The glass transition temperature ( $T_g$ , K), maximum crystal-growth velocity (MCV,  $\text{m s}^{-1}$ ), and maximum crystal-growth temperature ( $T_{c,\text{max}}$ , K) were key parameters for characterizing the amorphous properties of organic materials. Some quant. relations between these parameters and thermodyn. parameters were examined from both theor. and exptl. viewpoints. The equation for  $T_g$  of various aromatic compds. expressed as  $T_g = a - b\Delta S_{\text{tr},m}/N$  was nearly established, where  $\Delta S_{\text{tr},m}$  was the sum of the entropies of fusion and of phase transitions between  $T_g$  and the m.p. ( $T_m$ , K),  $N$  was the number of heavy atoms per mol. except H atoms, and  $a$  and  $b$  were consts. The relation could be successfully explained by using the Adam-Gibbs theory on the viscosity of supercooled liqs. The MCV for aromatic compds. nearly followed the equation  $\log(\text{MCV}) = c - dN/(T_m\Delta H_{\text{tr},m})$ , where  $c$  and  $d$  were consts. and  $\Delta H_{\text{tr},m}$  was the sum of the enthalpies of fusion and of phase transitions between  $T_{c,\text{max}}$  and  $T_m$ . This could be explained by a potential barrier model for mol. diffusion both at a crystal/supercooled liquid interface and in a bulk supercooled liquid. Consequently, mols. preferably used for amorphous films should have a sym. globular structure with a large mol. weight and small intermol. cohesion. According to these findings, high  $T_g$  and  $T_{c,\text{max}}$  and low MCV yielded stable organic glasses with high thermal stability.  
 IT 126717-25-7  
 RL: PRP (Properties)  
 (glass temperature of, transition-fusion entropies in relation to)  
 RN 126717-25-7 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-triphenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 29 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1992:601533 CAPLUS  
 DN 117:201533  
 TI Organic thin-film electroluminescent element  
 IN Takahara, Shigeru; Fukuda, Nobuhiro; Ohashi, Yutaka  
 PA Mitsui Toatsu Chemicals, Inc., Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04126790	A2	19920427	JP 1990-247161 JP 1990-247161	19900919 19900919

OS MARPAT 117:201533

AB The element comprises a pair of transparent electrode layers (1) sandwiching a laminate of a hole-transport (2) and a phosphor (3) layer, wherein (2) contains a m-phenylenediamine derivative I {R1-5=H, (un)substituted-alkyl, -alkoxyl, -halo; M = H, alkyl, alkoxyl, halo, [R6(C6H4)][R7(C6H4)]N; R6,7 = H, (un)substituted-alkyl, -alkoxyl, -halo}. The element provides a stable long-life backlight for liquid display devices.

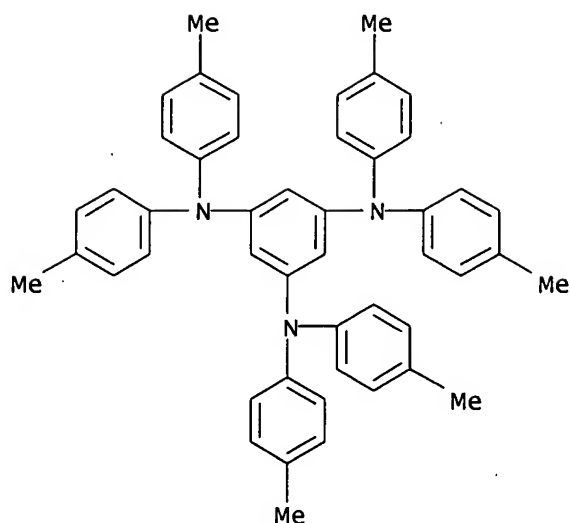
IT 134257-64-0

RL: USES (Uses)

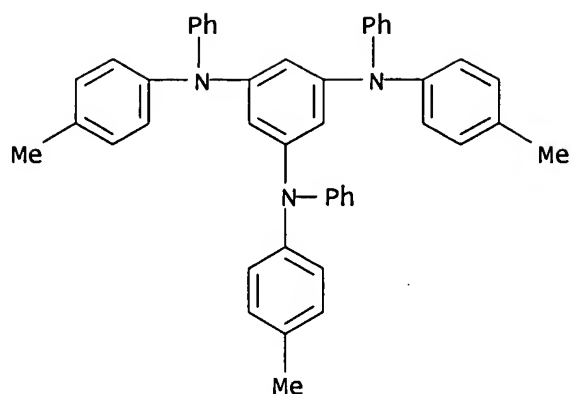
(organic thin-film electroluminescent elements from, as hole transporter)

RN 134257-64-0 CAPLUS

CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)- (9CI)  
 (CA INDEX NAME)



L4 ANSWER 30 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1992:425986 CAPLUS  
 DN 117:25986  
 TI Starburst molecules for amorphous molecular materials: synthesis and morphology of 1,3,5-tris(diphenylamino)benzene and its methyl-substituted derivatives  
 AU Ishikawa, Wataru; Inada, Hiroshi; Nakano, Hideyuki; Shirota, Yasuhiko  
 CS Fac. Eng., Osaka Univ., Suita, 565, Japan  
 SO Molecular Crystals and Liquid Crystals Science and Technology, Section A: Molecular Crystals and Liquid Crystals (1992), 211, 431-8  
 CODEN: MCLCE9; ISSN: 1058-725X  
 DT Journal  
 LA English  
 AB Methyl-substituted derivs. of 1,3,5-tris(diphenylamino)benzene are found to constitute a novel class of amorphous mol. materials, as characterized by differential scanning calorimetry and x-ray diffraction. These compds. readily form stable amorphous glasses having glass-transition temps. of ca. 50° on cooling from the melt. The Me substituent exerts a great influence on the formation of the glassy state.  
 IT 126717-25-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and amorphous glassy state of)  
 RN 126717-25-7 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-triphenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 31 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1992:417249 CAPLUS  
 DN 117:17249  
 TI Phenylenediamine derivative charge-transporting agent for  
 electrophotographic photoreceptor  
 IN Miyamoto, Eiichi; Muto, Nariaki; Maeda, Tatsuo; Sumida, Keisuke; Kimura,  
 Tadao  
 PA Mita Industrial Co., Ltd., Japan  
 SO Eur. Pat. Appl., 60 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 455247	A2	19911106	EP 1991-107132	19910502
	EP 455247	A3	19920513		
	EP 455247	B1	19950913		
	R: DE, FR, GB, IT				
				JP 1990-116132	A 19900502
				JP 1990-116133	A 19900502
				JP 1990-116134	A 19900502
				JP 1990-116135	A 19900502
				JP 1990-116132	19900502
	JP 04013775	A2	19920117		
	JP 08009577	B4	19960131		
	JP 04013776	A2	19920117	JP 1990-116133	19900502
	JP 08009578	B4	19960131		
	JP 04013777	A2	19920117	JP 1990-116134	19900502
	JP 08009579	B4	19960131		
	JP 04013778	A2	19920117	JP 1990-116135	19900502
	JP 07059673	B4	19950628		

OS MARPAT 117:17249

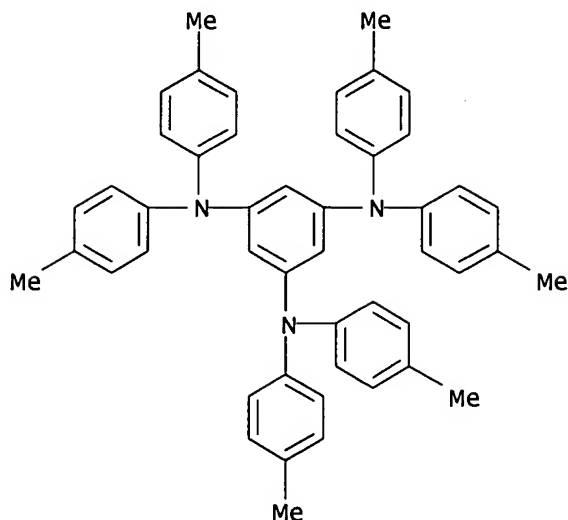
AB A m-phenylenediamine derivative having the general formula I, II, or III [R1-4 = alkyl, alkoxy, halogen, or (N-substituted) amino; R5, R6, R8 = alkyl, alkoxy, halogen, (N-substituted) amino, alkenyl, or aryl; R1 = alkyl, alkoxy, halogen, (N-substituted) amino, alkenyl, aryl, or an electron-attracting group selected from nitro, sulfo, cyano, COR9 (R9 = H, alkyl, or amino), carboxyl, or esterified carboxyl; l, m, o, p = an integer of 0-5; q, r = 0 or but q + r ≥ 1; S = an integer of 0-4] is used as a charge-transporting agent in an electrophotog. photoreceptor.

IT 134257-64-0P

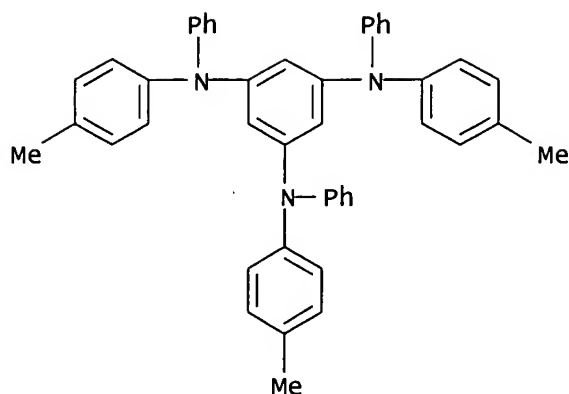
RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and use of, as charge-transporting agent for electrophotog. photoreceptors)



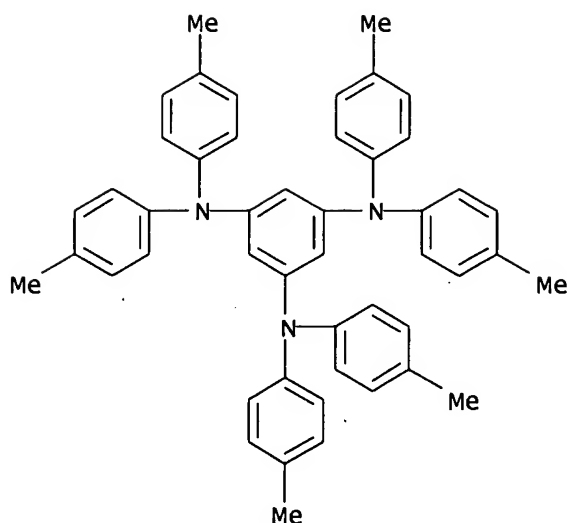
RN 134257-64-0 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)- (9CI)  
 (CA INDEX NAME)



L4 ANSWER 32 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1992:40989 CAPLUS  
 DN 116:40989  
 TI Methyl-substituted derivatives of 1,3,5-tris(diphenylamino)benzene as a novel class of amorphous molecular materials  
 AU Ishikawa, Wataru; Inada, Hiroshi; Nakano, Hideyuki; Shirota, Yasuhiko  
 CS Fac. Eng., Osaka Univ., Suita, 565, Japan  
 SO Chemistry Letters (1991), (10), 1731-4  
 CODEN: CMLTAG; ISSN: 0366-7022  
 DT Journal  
 LA English  
 AB Methyl-substituted derivs. of 1,3,5-tris(diphenylamino)benzene (TDAB) show unique solid-state morphol., as characterized by differential scanning calorimetry and x-ray diffraction. These compds. readily form stable amorphous glasses having glass-transition temps. of ca. 50°. p-Methyl-substituted TDAB exhibits polymorphism.  
 IT 126717-25-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 126717-25-7 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-triphenyl- (9CI) (CA INDEX NAME)



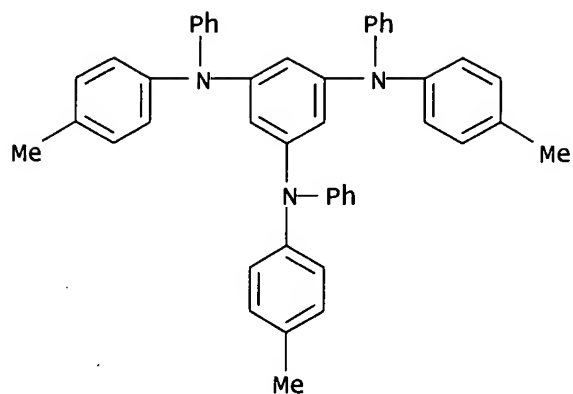
L4 ANSWER 33 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1991:256810 CAPLUS  
 DN 114:256810  
 TI Molecular design for better charge transporting organic materials. (II).  
 Hole drift mobility and chemical structure of arylamine derivatives  
 AU Tanaka, Hiroaki; Yamaguchi, Yasuhiro; Yokoyama, Masaaki  
 CS Fac. Eng., Osaka Univ., Suita, 565, Japan  
 SO Denshi Shashin Gakkaishi (1990), 29(4), 366-72  
 CODEN: DSHGDD; ISSN: 0387-916X  
 DT Journal  
 LA Japanese  
 AB Arylamine derivs. containing only N-Ph units, which can be taken as a structural min. unit for hole carrier, were synthesized, and their hole-drift mobilities in polymer dispersions were studied in relation to their chemical structure. The results validated the previously proposed concept for developing better charge-transporting carriers and the dependence of their mobility on the chemical structure was thus observed for the first time, is related to the position of the N-Ph substituent on benzene. The dependence was interpreted by the more concrete concept of polyfunctionality and intramol.-mobility based on MO calcns. Among the compds. investigated, a new arylamine derivative, N,N,N',N'-tetrakis(3-methylphenyl)-m-phenylenediamine (m-PDA), showed a high-hole mobility.  
 IT 134257-64-0  
 RL: USES (Uses)  
 (hole-drift mobility in, as charge-transport material for electrophotog.)  
 RN 134257-64-0 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N,N',N',N'',N''-hexakis(4-methylphenyl)- (9CI)  
 (CA INDEX NAME)



L4 ANSWER 34 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1990:188985 CAPLUS  
 DN 112:188985  
 TI Electrophotographic photoreceptors containing a triaminobenzene charge-transporting substance  
 IN Ogata, Michiko; Watanuki, Tsuneo; Kamisaka, Tomosumi; Tsukamoto, Koji; Saruwatari, Norio  
 PA Fujitsu Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01219838	A2	19890901	JP 1988-46501	19880229
				JP 1988-46501	19880229

OS MARPAT 112:188985  
 AB Electrophotog. photoreceptors have a photoconductive layer containing a triaminobenzene derivative I [R, R1-5 = lower alkyl, lower alkoxy, (substituted) aryl, aralkyl] as a charge-transporting substance on an elec. conductive support. The photoreceptors exhibit high sensitivity, low residual potential, and good cyclicability. Thus, an Al-deposited polyester film was coated with a composition containing AlCl<sub>3</sub> phthalocyanine and polyester resin and overcoated with a composition containing I (R = R1-5 = Ph) and polycarbonate resin to give a photoreceptor showing good sensitivity and cyclicability.  
 IT 126717-25-7  
 RL: USES (Uses)  
 (charge-transporting agent, for electrophotog. photoconductor, for repeated use)  
 RN 126717-25-7 CAPLUS  
 CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methylphenyl)-N,N',N''-triphenyl- (9CI) (CA INDEX NAME)



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---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	199.24	367.02
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-25.50	-25.50

STN INTERNATIONAL LOGOFF AT 11:26:31 ON 13 NOV 2006